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Proceedings
of the
**Conference of State and Provincial
Health Authorities of North America**
1923



PROCEEDINGS
OF THE
THIRTY-EIGHTH ANNUAL MEETING
OF THE
CONFERENCE OF STATE AND PROVINCIAL
HEALTH AUTHORITIES OF
NORTH AMERICA

HELD AT
WASHINGTON, D. C., MAY 14, 15, 1923

PROCEEDINGS
OF THE
THIRTY-EIGHTH ANNUAL MEETING
OF THE
CONFERENCE OF STATE AND PROVINCIAL HEALTH
AUTHORITIES OF NORTH AMERICA
HELD AT
WASHINGTON, D. C., MAY 14, 15, 1923.

SESSION ON MONDAY MORNING, MAY 14.

The Conference was called to order by the President, Dr. Arthur T. McCormack of Kentucky, at half past nine.

ROLL CALL

BY STATES AND PROVINCES.

U. S. Public Health Service.....	Dr. Hugh S. Cumming
	Dr. Mark White
	Dr. Taliaferro Clark
	Dr. A. J. McLaughlin
	Dr. L. L. Lumsden
	Dr. B. J. Lloyd

STATES AND PROVINCES

Alabama.....	Dr. S. W. Welch
Arkansas.....	Dr. C. W. Garrison
Arizona.....	Dr. F. T. Fahlen
California.....	Dr. Adelaide Brown
Colorado.....	Dr. Tracy R. Love
Connecticut.....	Dr. Stanley Osborn
Delaware.....	Dr. L. S. Conwell
District of Columbia.....	Dr. William C. Fowler
Hawaii.....	Dr. F. E. Trotter
Indiana.....	Dr. William F. King
Kansas.....	Dr. S. J. Crumbine
Kentucky.....	Dr. Arthur McCormack
Louisiana.....	Dr. Oscar Dowling

Maryland.....	Dr. J. S. Fulton
Massachusetts.....	Dr. Eugene R. Kelley
Michigan.....	Dr. R. M. Olin
Minnesota.....	Dr. A. J. Chesley
Mississippi.....	Dr. Applewhite
Missouri.....	Dr. Thomas Parran, Jr.
Montana.....	Dr. W. F. Cogswell
New Mexico.....	Dr. George S. Lockett
New York.....	Dr. Matthias Nicoll, Jr.
North Carolina.....	Dr. W. S. Rankin
Ohio.....	Dr. John E. Monger
South Carolina.....	Dr. James A. Hayne
Tennessee.....	Dr. C. B. Crittenden
Vermont.....	Dr. Charles F. Dalton
Virginia.....	Dr. Roy K. Flanagan
Washington.....	Dr. Paul A. Turner
West Virginia.....	Dr. W. T. Henshaw
Wisconsin.....	Dr. C. A. Harper
Wyoming.....	Dr. G. M. Anderson

Guests present were: Dr. Thomas Crowder, Director, Division of Surgery Company; Dr. John Ferrell, Director for the United States of the International Health Board; James A. Tobey, National Health Council; Commander Phelps, U. S. Navy; Major Dunham, U. S. Army; Dr. Anna Rude, Director, Division of Child Hygiene, U. S. Children's Bureau; Harriet Leete, Dr. Boldt, Dr. Palmer, American Child Health Association; Grace Abbott, Chief, U. S. Children's Bureau; Julia Lathrop, formerly Chief, U. S. Children's Bureau; Malinde Havey, American Red Cross; Elizabeth Fox, American Red Cross; Dr. Hastings, Toronto Health Department; Dr. Bigelow, Director, Cornell Clinics, New York City; Dr. Arthur B. Emmons, 2nd, Director, Harvard Mercantile Health Work; Dr. Walter Brown, Director, Mansfield Child Health Demonstration; Dr. L. Rajchmann, Director Health Section, League of Nations; General Russell, International Health Board; Dr. E. C. Harley, H. A. Whittaker, Minnesota; Dr. Wadsworth, Dr. Florence McKay, New York; Dr. Underwood, Mississippi.

PROGRAM

MONDAY, MAY 14, 1923

Beginning promptly at 10:00 a. m.

1. Call to Order
2. Roll Call of States and Provinces
3. Introduction of New State Health Officers
4. President's Address.....Dr. Arthur T. McCormack
5. Report of the Secretary-Treasurer and Executive Committee...Dr. Richard M. Olin
6. Report of the Committee on Drug Addiction
Dr. Frederick Stricker, *Chairman*; Dr. Oscar Dowling, Dr. Clarence F. Kendall,
Dr. H. E. Young
7. Report of the Committee on Tourists, Vacations and Resorts
Dr. R. M. Olin, *Chairman*; Dr. Walter M. Dickie, Dr. James A. Hayne, Dr.
Charles F. Dalton, Dr. H. E. Young, C. E. Dorisy, Dr. Tracy R. Love.
8. Report of the Committee on Morbidity Reports
Dr. W. S. Leathers, *Chairman*; Dr. A. R. Lewis, Dr. B. S. Warren, U. S. P. H.
S., *Consulting Member*

9. Report of the Committee on Medical Service
Dr. Matthias Nicoll, Jr., *Chairman*; Dr. Walter M. Dickie, Dr. Ennion G. Williams, Dr. W. S. Rankin
10. Appointment of Conference Committees
 - (a) Auditing Committee
 - (b) Committee on Resolutions
 - (c) Committee on Nominations
 - (d) Committee on Public Announcements
11. Announcements

AFTERNOON SESSION, MAY 14, 1923

Beginning promptly at 1:30

1. Address by Brigadier-General Sawyer, U. S. N.
2. Report of Committee on Relation Between Medical Men and Health Officers
Dr. W. S. Rankin, *Chairman*; Dr. I. H. Dillon, Dr. A. J. Chesley, Dr. Eugene R. Kelley, Dr. S. J. Crumrine
3. The Relation Between Medical Men and Health Officers
Dr. Bigelow, Director, Cornell Clinics, New York City
4. Report of the Committee on Public Health Nursing
Dr. A. J. Chesley, *Chairman*; Dr. Eugene R. Kelley, Dr. Walter M. Dickie
5. Report of the Committee on Sanitary Engineering
Dr. Charles F. Dalton, *Chairman*; Dr. Paul A. Turner, Dr. Raymond C. Turk, C. N. Harrib
6. Report of National Health Council
Dr. S. J. Crumrine

TUESDAY, MAY 15, 1923

Beginning promptly at 10:00 a. m.

1. Report of Committee on Venereal Diseases
Dr. Isaac D. Rawlings, *Chairman*; Dr. John S. Fulton, Dr. S. W. Welch, Dr. C. C. Pierce, U. S. P. H. S., *Consulting Member*
2. Report of Committee on Mental Hygiene
Dr. Eugene R. Kelley, *Chairman*; Dr. W. F. Cogswell; Dr. H. A. Haynes, *Consulting Member*; Dr. Frankwood Williams, *Consulting Member*
3. Report of Committee on School Hygiene
Dr. Ennion G. Williams, *Chairman*; Dr. William C. Fowler, Dr. John W. S. McCullough, R. B. Fitzrandolph
4. Report of Committee on Industrial Hygiene
Dr. John E. Monger, *Chairman*; Dr. Byron U. Richards, Dr. Stanley Osborn
5. Mercantile Hygiene an Asset to Public Health
Dr. Arthur B. Emmons, 2d, Director, Harvard Mercantile Health Work, Boston

AFTERNOON SESSION, MAY 15, 1923

Beginning promptly at 1:30

1. Sheppard-Towner Symposium
Walter Brown, M. D., Director, Child Health Demonstration, Mansfield, Ohio; Dr. Adelaide Brown, Member of California State Board of Health; Dr. Anna Rude, Director of Maternal and Infant Hygiene, U. S. Children's Bureau; Dr. W. S. Leathers, Mississippi; Dr. A. J. Chesley, Minnesota; Dr. Charles Duncan, New Hampshire

2. Report of Committee on Infancy, Maternity and Child Hygiene
Dr. James A. Hayne, *Chairman*; Dr. T. F. Abercrombie; Dr. Cortez F. Enloe;
Dr. Anna Rude, U. S. Children's Bureau, *Consulting Member*; Dr. Taliaferro
Clark, U. S. P. H. S., *Consulting Member*
3. Report of Committee on Communicable Diseases
Dr. S. W. Welch, *Chairman*; Dr. Charles Duncan, Dr. M. M. Seymour, Dr.
I. H. Dillon, Dr. C. A. Harper
4. Health Examination Plans of National Health Council
Dr. A. J. McLaughlin, U. S. P. H. S.
5. Report of Committee on Recent Advances in Sanitary Practice
H. A. Whittaker, *Chairman*; Dr. E. G. Williams, Dr. C. W. Garrison
6. Public Health in England
Dr. John W. S. McCullough, D. P. H., Chief Officer of Health of Ontario
7. Report of Conference Committees
8. Election of Officers
9. Installation of Incoming President
10. Announcements
11. Adjournment

PRESIDENT'S ADDRESS

BY ARTHUR T. McCORMACK, M. D.
State Health Officer, Kentucky

Never before in the history of mankind has there been so much attention concentrated on the welfare of the individuals that compose it, and yet we know definitely that, here in these United States, where the greatest progress has been made in the standards of living for the average man or woman, death rates may be reduced in years to come from one-third to one-half what they are at the present time, which would mean a reduction of from 75% to 80% in our present sick rate. What this would mean to the world in increased human happiness and efficiency staggers the imagination and what it would mean to each of our states and to our nation in economic as well as human saving, a saving that would enable us to develop concomitantly with the progress of the race, our roads, mines, factories, schools and homes, cannot be computed.

How can this be done? By the development of a leadership in this body and through this body of the great profession that it represents so that that profession realizing its responsibilities for human life, will not only educate our people to the necessity for a certain amount of protection in personal life and environment, but will also galvanize our nation and all its units, into action. As students of history, especially of recent history, and as social engineers charged officially with the responsibility of progress in human health and happiness in our several jurisdictions, what can we learn from the one and what definite plans can we provide for the other? Why has the medical profession, to a certain degree, lost its place in the high esteem of the public? That it has done so is proven by the fact that cults of healers, devised by half-wits, grabbing their knowledge

and their terminology from the garbage cans of medical science, using the discarded rubbish of the profession that has advanced step by step in the prevention and treatment of human disease, have been authorized by law in most of our states, to mistreat and mistreat the ignorant, sick and afflicted. Is this not because we have seemed too frequently to devote ourselves to science at the expense of humanity? We resent lack of public appreciation of our work, the more so because we have made ourselves the slaves of science for the benefit of humanity. Meanwhile these cults using neither science nor humanity but, highly trained in advertising, in publicity, in flagrantly violating the law, in bootlegging, (the poison by-product of the ancient art of medicine), take advantage of mob psychology which enables them to create a false, and usually corrupt demand.

We do not express the faith that is in us, either persistently enough or loud enough so that those who do not care to hear must hear. Too frequently in our offices, our hospitals, our colleges, we seem to sit waiting, like the spider, for the unfortunate sick who still come to us, a somewhat gradually decreasing number in proportion to the total number of the public, this unfortunate and frequently ignorant sick grasping at every straw, unable in their helplessness and consternation to discriminate between true and false. And we let that continue instead of letting our light so shine that all men may see.

Let us make it clear that no allied profession working with our profession for the public ideal is our competitor and make it equally clear that ours is

the responsibility for the development of every one of these—pharmacy, dentistry, nursing, massage, laboratories, anaesthesia, all are members of our family but we are the father of them all and in the final analysis wholly responsible for their development and jointly responsible with them for the public health. We must assume this responsibility and we must develop this leadership. Ours must be the control. We can only assume that responsibility and develop that leadership if we provide our allies and the public with a definite program which is large enough to command their respect and which is sufficiently practical to warrant them in spending money, time and training organizing the personnel which will carry it into effect. What can we do and how can such a plan be developed? It can only be developed by a co-ordination of Federal, state and local agencies as would, with the least expense and most efficiency, apply themselves to a solution of this problem of better health and universal happiness. There is no question but that our unit of government for health purposes must be a governmental unit approximately the size, in population and area, of the average county, containing approximately forty to sixty thousand people, and covering an area of from 750 to 950 square miles. A smaller unit of government than this cannot afford to employ the necessary experts, a larger unit is usually concentrated in the cities and the cities, fortunately, are caring for the problem.

Our biggest problem in America is the problem that we have not yet solved, the giving of health and efficiency to our rural population. The first and pressing need, naturally, was afforded

by the concentrated population of the city but that was so necessary, so evident that it was cared for and as it has been more effectively cared for, we are gradually taking stock of the increasing diseases and inefficiencies in our rural population. If the time ever comes when our people all realize what you and I know, that it is easier to be happier in town, in a sort of way, easier to approach the average, to give your children the kind of education city boys and girls get, rendering them more effective members of the city population than any agency we have as yet discovered in our rural population can do, as soon as that knowledge becomes universal everybody will move to town and there will be no rural population. We will be dependent for our food and raw material, for all our progress on some other country which has not learned these basic facts. In addition to that we are developing in the whole country a system of education that is training our boys and girls to think and not to work, training them not in the nobility of labor but in meth-our eagerness to pass laws which would ools that can get them out of labor. In destroy the commercial utilization of child labor we have created a public opinion that thinks children should not work at all during the school age and in creating that opinion we have gradually evolved the situation that the city boy or girl does not work until he has finished all the school he will take. The rural districts have been the human laboratories that have constantly replenished the leadership that is not developed in the city population. The difficulty is that we have not yet struck the public conscience or the profession with the necessity for the development

of local health organizations. Why haven't we? It is because we have not recognized the problem ourselves, we have not studied it ourselves.

In the last two years, the Kentucky State Medical Association, following the suggestion and inspiration of Dr. Rankin in his presidential address before this body several years ago, has been holding tuberculosis clinics, superficial in a way, not definitely scientific like the Cornell clinics. Yet superficial as these clinics were they developed the fact that of the cases of tuberculosis that came to them which were definitely tuberculosis, not incipient cases, but definitely tuberculosis as established by the sputum, just a little less than fifty per cent of them had never consulted physicians at all and of those who had consulted physicians a little more than fifty per cent had never been told they had tuberculosis and had never been given any instructions that would enable them to prevent contamination of the babies and children with whom they came in contact. This is one of a number of examples. Recently in a child-health conference in Louisville 4,500 children were brought to the conference and given definite health examinations. It was interesting to find that of the 4,500, most of them from Louisville, probably not more than 1,500 from outside the corporate limits, less than 8% of the mothers had had any prenatal care and most of that prenatal care had merely been one visit to the physician's office at the time he was engaged to take care of the delivery, when more or less of an examination was made. Those are but illustrations of the very definite statements Dr. Rankin made in his remarkable address which I am reviewing for the purpose of recalling

to your mind the definite figures which he gave you. What I want to get you to feel, as he did, and what, through you, I want to get the profession to feel, is that it is essential that we so reorganize our medical practice that that tremendous group of babies, children, men and women, now suffering from defects, that might have been prevented and could have been cured at one time, if not now, be brought under the beneficent influence of our profession. The profession should meet the problem and should solve it. There is no other ray of hope for these people. Thousands of people, and this thought must be definitely born in the minds of every one of them, are suffering because we have not so organized ourselves that we can solve their individual problems. How are we going to do this? As I have suggested, for a number of years we have been making such rapid progress in our own scientific problems that it has taken all of our energy and thought to keep up. The layman who is treated by us comes to us largely because of the reputation our fathers made, because of the standing they had in the communities rather than because of the personal or professional standing which we have ourselves and it is important for us to realize that we must show the great general public what the medical profession is, what it does and what it stands for. When this is done, no advertising, however misleading, can mislead them. We must realize that in the great cult of Christian Science most of its followers are rather well-educated people, cultured people, yet they are not educated in the one thing that is absolutely essential for their success

and happiness, namely, the physical care of their bodies.

We have attempted further a development that was first brought about by the great showman in public health, Dr. John Robertson of Chicago, who put on the Pageant of Progress as an attempt to strike the imagination in such a way as to produce enough money to accomplish certain results. It was a superficial thing in the light of further developments, as you would expect it to be since it was the first thing of its kind, rather badly managed, showing a great many things not worth while. The layman who went through it, if he knew as much as one of you, got the idea that if this thing were properly done, it would be a great development in the public education of the masses in the cities and from the cities could be extended to the country. Fortunately a man with public health spirit from Cincinnati, saw that first health exposition. He came back to Cincinnati and organized a health exposition which was far in advance of the other. The scientific exhibits in that exposition were remarkable in their detail. The exhibit of the Medical Department of the University of Ohio was one of the finest things I have ever seen. It made the physicians who had been out of school a few years familiar with the points of medical progress and reviewed our knowledge of old truths in a practical way. Following that, similar expositions were held in Louisville, Indianapolis and other places that have concentrated the attention of enormous numbers of people on what they can do for the public health, on the necessity for an alliance between all those agencies interested in

health. These expositions have also brought to the mind of the profession which needs it most because it is the most isolated and individualistic of all professions, what the public thinks about. Just as it is important for the public to know our profession and to know what they are doing, it is still more important for the medical profession of America to understand the individuals who compose their clientele, to whom they are under obligation, and to know what they are thinking. In Louisville, with a population of 300,000, 110,000 went through the exhibition. Can we point to any concrete result? Dr. Olin in discussing the matter with me today at lunch said we should not make statements we could not definitely support. We frequently have to be silent about many of our movements but in this one instance I have a statement of a definite result I can make. In 1921 the Public Health Nursing Association in Louisville furnished nursing care for 1-32 of the babies born in Louisville; in 1922 as a result of the exposition and demonstrations there of what public health nursing service is, they furnished public health nursing service to 1-6 of the babies born in Louisville and during 1922 the average death rate of that 1-6 was 17 in 1,000 births while the average death rate for all babies born in Louisville was 81 per one thousand births. This is a definite statement of the benefit to be derived from public health education. It draws your attention to the interesting fact that though this nursing care is furnished largely to the poor mothers who need it most in the ordinary acceptance of the term, yet these same poor mothers are showing a lower death rate for

themselves and a lower death rate for their babies than those who can get the best care. It is worth thinking about in formulating our plans for such reorganization as will give adequate service to all of our people.

It seems to me very important that we exercise ourselves, that we multiply our usefulness by reaching out and influencing the only element in the population that can solve this problem and that element is the medical profession. In our states only so far as we reach and move and use them will we solve the problem of public health. If the United States Public Health Service, manned as it is by effective, efficient and devoted officials could be multiplied so that there would be one of these officers in every town in the country carrying on educational work and all the other public health control measures that under the law they can do, if the medical profession and its allied professions that are doing the job for the people and with them, could be imbued with the same ideals that you have, then we might solve the health problem. We might as well get down to brass tacks. Let us get to work to bring about a different sort of relationship between our specialists in medicine and our general practitioners so we will all be working together. If we have to slow up for a while in order to make our contacts with them we can make greater speed when we have the entire medical body moving in one direction and with the same momentum. It seems to me to be of the utmost importance that we get in our minds definitely that it does not make any difference where our money comes from. Every once in a while some orator gets up in the legislature and gets tremen-

dous applause for advocating the eradication of some certain disease, goitre, for instance. I understand there is going to be \$10,000,000.00 Federal money appropriated for a goitre campaign which will bring out \$4,000,000.00 State money. It would not take half that much if the proper plan that would strike their imagination, were devised and put before the people of this country. We could have county health departments which would reach into the homes of every citizen in every county in the United States. These county health departments could do the work for much less money and prevent most of the sickness and premature deaths that we now have in America. That being true, let us be animated by the thought that it does not make any difference whether the campaign is against venereal disease or cancer. Let us use whatever money we get from whatever source for developing that campaign, putting every cent of it into the local health department where every citizen of the county may go for advice on all those problems which affect their health and happiness and therefore their usefulness. It is so easy to get off the high road, so easy to make detours around pleasant falls and over attractive hills but if you want to get to your objective and we have but one, the reduction of unnecessary sickness, the prolongation of life and the increasing of human happiness, we must stay on the high road until we obtain it, sending our bureau chiefs around the detours. Such an organization would furnish a retail establishment through which the wholesale knowledge of our Federal and state organizations could reach the public. We have to rehabilitate ourselves

in the public minds; we have to rehabilitate ourselves as official organizations to attain the leadership we have neglected to exercise. There is no voluntary organization working in America today that ought not to have been organized by us. There would never have been any tuberculosis associations if the state health officials of America had not realized the problem of tuberculosis. We owe very much to the organization but we did not organize it for the purpose of developing local health activities; all it requires is a few years for such an organization to evolve itself into an organization trying to develop local health work. Presently the National Tuberculosis Association will have changed its name to the Local Health Organization. No matter what organization develops it only develops because we fail to. The reason we have this monster we all look at from different viewpoints but agree upon that it is a monstrosity — governmental monstrosity — the Interdepartmental Social Hygiene Board, is because as an organization we failed to do the job. We were so polite, modest and ignorant we did not realize venereal diseases could be controlled and we stood by until somebody else came in and took hold of it. That will be true so long as we permit our leadership to be divided and so long as we fail to furnish it. Now we have the opportunity to begin at the top. It has been suggested that all Federal Agencies engaged in activities in health education, and social welfare be united under one department and there is every indication that the moment is psychological for such a union to be made. Through this organization and its allies we can have

in the United States under the leadership of this President and this Administration a competent officer who will devote himself to education and health. It is perfectly natural for those bureaus affected by it not to want to lose their identity yet the Surgeon General of the United States Public Health Service and every other bureau when confronted with its magnitude was immediately willing to assist in realizing the plan.

As soon as we furnish the leadership and have animated our entire profession with our knowledge and our zeal and as soon as that profession has reached out through the League of Women Voters, the luncheon clubs, the Chambers of Commerce, the organized educators, through all of those agencies that are looking forward to the development of the Nation and who do not want to see it destroyed by unnecessary disease as other civilizations have been, just that soon will we solve the problem. As we hold ourselves on the broad road of statesmanship in public health, forgetting the petty details of it, and moving straight forward, being

sure we are looking from side to side so that we do not get stuck in the bog, so will we attain our goal of better health for the people of America.

COMBINED REPORT OF EXECUTIVE COMMITTEE AND SECRETARY-TREASURER.

By R. M. OLIN, M. D.,

Secretary-Treasurer

At the present time, there is in the treasury \$286.30, receipts for the year being \$1,090.00 and expenditures \$2,211.78.

The states in arrears for dues are Alaska, Canal Zone, Colorado, Idaho, Manitoba, Missouri, New Brunswick, Nevada, North Dakota, Oklahoma, Philippine Islands, Porto Rico and Wyoming. With the exception of Colorado, New Brunswick, Oklahoma and Philippine Islands, all these states report that they have no funds.

The contract for printing the proceedings of the 1922 meeting was given to Wynkoop, Hallenbeck and Crawford Company of Lansing, who made the lowest of three bids—\$725.50.

FINANCIAL STATEMENT.

On hand May 1, 1922.....	\$1,408.98
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RECEIPTS.

Back dues.....	20.00
Dues, 1922-1923.....	1,070.00
Total.....	\$2,428.98

DISBURSEMENTS.

May 12—Ridley and Gray Printing Co. for printing 500 sheets stationery.....	9.50
May 12—National Health Council for legislative statements, 2024.....	30.00
May 12—Western Union Telegraph Co.	27.03
May 24—Dr. Olin's Secretary—traveling expenses to annual meeting.....	92.00
May 25—R. M. Olin—one-third of expense of hotel room for committee meeting May 15-18.....	10.00
May 31—Clarence F. Lamb, Providence, Rhode Island, for 200 copies Report of Committee on Service of State Public Health Laboratories.....	62.16
May 31—Allen & DeKleine, Lansing, 200 programs.....	14.00
June 5—Western Union Telegraph Co.	21.03

June 12—National Health Council—legislative statements, 25-27.....	18.00
June 16—Peter F. Gray, postmaster.....	26.25
June 16—Michigan Central, freight on 1921 proceedings.....	9.79
June 16—Riverside Press for printing 500 copies 1920-1921 proceedings....	833.00
June 26—Allen & DeKleine Co., 1000 letter heads.....	5.00
June 28—Peter Gray, postmaster.....	12.98
June 30—Allen & DeKleine, 100 envelopes.....	5.00
Aug. 7—Western Union Telegraph Co.....	1.62
Aug. 18—American Public Health Association for composition on Freeman's article removed from Journal after type was set.....	14.40
Sept. 19—Western Union.....	6.74
Aug. 15—Rhode Island check for dues returned.....	20.00
Oct. 5—Western Union.....	.72
Oct. 4—Colorado check for dues returned.....	20.00
Oct. 18—Peter F. Gray, postmaster.....	10.00
Oct. 23—R. M. Olin—for one-third expense of hotel room used for commit- tee meetings.....	4.50
Oct. 26—National Health Council legislative statements 28-36.....	54.00
Nov. 9—Western Union.....	1.42
Nov. 21—Membership dues in National Health Council for 1923.....	50.00
Jan. 3, 1923—Allen & DeKleine, 1000 envelopes and letter heads.....	10.00
Jan. 10—Wynkoop, Hallenbeck, Crawford Co., Lansing, for printing 1922 proceedings.....	715.75
Jan. 25—William Force, postage for mailing 400 proceedings.....	36.00
Feb. 8—Western Union.....	30.18
Feb. 19—Walter Rogers, postmaster.....	10.00
Mar. 6—Western Union.....	2.97
Feb. 14—Exchange on Canadian check.....	.30
Mar. 7—Montana check for dues returned.....	20.00
Mar. 14—A. T. McCormack, fare from Detroit to Lansing and return.....	6.36
Mar. 23—Walter Rogers, postmaster.....	15.00
Mar. 27—Allen & DeKleine, 1000 letter heads.....	5.00
April 10—Western Union.....	.85
May 2—Walter Rogers, postmaster.....	1.22
Total expenditures.....	\$2,211.78
Balance on hand May 4, 1923.....	286.30

Three executive committee meetings have been held: on May 14, 1922, in Washington, October 1, 1922, in Cleveland and January 15, 1923, in Washington. You have received copies of the minutes of all of the meetings. The first preceded the annual meeting May 15 and 16 and the second was called at the time of the annual meeting of the American Public Health Association. Dr. McCormack issued a special call for the third to enable representatives of this organization to meet with the physicians in Washington who were considering the plan for the reorganization of the Federal health service. The Joint Congressional Committee appointed two years ago to investigate the reorganization of the welfare work of the government

had completed its report and expected to present it to Congress. The meeting of physicians was called to crystalize their opinion and present it to the President. Following is the statement of Brigadier-General Sawyer made at the meeting and the resolution adopted:

"The present indications are that the subject of reorganization of the Governmental Departments is soon to come before Congress.

"Since this affects the medical profession, it has been deemed advisable by those directly concerned to have the general medical profession understand what is in contemplation.

"For some time there has been a plan on foot for the development of a Department of Public Welfare. The

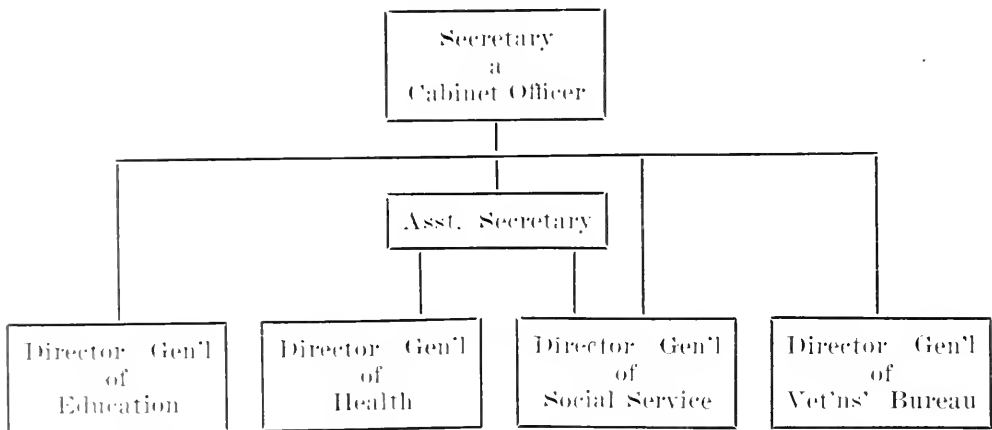
Reorganization Committee of the Government has agreed that it is essential that such a Department be created, and since there is likely to be early preliminary action upon this subject, I deem it advisable that the medical profession should be informed as to a tentative plan now under consideration, to be presented to Congress, which affects the Public Health Service of the United States.

"After a careful study of the necessity of a Department of Public Welfare it has been concluded that

a Department of Public Welfare should be organized, incorporating in its scope Education, Public Health, Social Service and the Veterans' Bureau. This would be conducted under a new Cabinet Officer, with an Assistant Secretary, and one Director General for each of the sub-divisions of the Department the sub-divisions to be sectionized as found necessary in the fulfillment of the completed plan.

"The following is a general outline of the plan contemplated and shows the various services affected:

DEPARTMENT OF EDUCATION, HEALTH AND WELFARE



"It is proposed that the various agencies of the Federal Government (except those within the Army and Navy), relating to Health, Education, Social Service and the Rehabilitation of Veterans, be transferred to a new Executive Department, to comprise four bureaus as named in the organization chart above, each of the agencies transferred to carry with it its present powers, appropriations and personnel intact.

"The plan means to medicine a splendid opportunity for the promotion of

the interests of the medical profession and the whole Public Health Service.

"We are assured by all concerned in the reorganization plan of the various Departments of Government that they are agreeable to the carrying out of an idea which will promote the interests of medicine and make it possible to develop a Public Health System in the United States superior to that of any of the nations of the world.

"I would therefore suggest that the medical profession get actively at work to bring about the support of their

Congressmen to the measure, which will likely be presented to Congress in the very near future.

"Let it be understood that this is a most opportune time in which to take up matters of importance to the medical profession and that the prospect was never better than now for the establishment of medicine in a fixed unit, associated with other Departments of the Government, which would provide a most satisfactory and effective plan for the carrying out of the highest ideals of modern medicine.

"In order that the most may be accomplished and the greatest effectiveness be brought about, it is essential that the medical profession should stand as a unit behind the tentative plan which is now under contemplation, and it is my personal wish that the tentative plan will be deemed consistent and found worthy of the heartiest support and co-operation of all the medical men and women.

"I would charge you in considering and discussing the matter that it is essential that minor details be not allowed to enter into the consideration of the subject at this time. Let it be the purpose of all to think of the principle involved rather than the application.

"I would impress upon you also that it is important that we all proceed in agreement with the general idea, trusting that ultimately the tentative plan now contemplated may summarize itself into a definite Department which will elevate the standards of medicine and bring about a more congenial relation of all Public Welfare affairs, and therefore fulfill the promise of early consummation of the strongest and best Governmental Public Health

Service that has so far been devised."

Dr. McCormack delivered a message from Dr. Hubert Work as follows: "That, while realizing that most educational and public health functions are reserved to the states, the administration feels by heading them up in a single sympathetic federal department those who are devoting their lives to this work will be greatly encouraged with the result, that the children of the country would be educated so that they will have happier, healthier and more effective lives, and that the average human life may be greatly extended. It is neither desired nor desirable that great federal machines should be created for those purposes, but rather that the present bureaus exercising these functions should be placed together in a congenial department, where they will bring about that co-operation among the states which is of national interest."

After a discussion participated in by all present, a committee consisting of Drs. Chesley, Woodward and Fitzpatrick was appointed to draft a resolution, which committee reported as follows:

WHEREAS, it is the sense of this conference of physicians, assembled to consider methods for more effectively and economically organizing the health activities of the Federal Government, that the principles of such organization as embodied in the plan submitted by the Chairman of the Joint Committee on Reorganization of the Government Departments, whereby the health activities will be assembled in an independent department, together with the educational activities, social service activities, and the activities of the Veterans' Bureau, constitute an effect-

ive and desirable basis for accomplishing that end; Therefore be it

RESOLVED, That said principles have the hearty approval of this conference; and be it further

RESOLVED, That, inasmuch as health activities will necessarily constitute one of the prime functions of the proposed department, the name of said department, if consistent with the plan of organization, be made to indicate that fact, as for example, by designating it as "The Department of Education, Health and Welfare."

Signed: A. T. McCormack, Ennion G. Williams, Gilbert Fitzpatrick, R. M. Olin, W. O. Owen, C. W. Garrison, A. J. Chesley, Claude W. Belting, W. A. Pearson, James A. Hayne, E. R. Stitt, H. S. Cumming, W. C. Woodward, J. T. Boone, M. W. Ireland.

The above committee was appointed to wait on the President and present to him a copy of the resolution signed by all present, and to express to him the appreciation of those present for his interest in public health.

An ad interim committee was appointed by the chairman consisting of Drs. Olin, Woodward, Pearson and the chairman ex officio.

After a vote of thanks extended to Brigadier-General Sawyer for his courtesy extended during the meeting, the conference adjourned.

In addition to the action on the organization of a Department of Education, Health and Welfare, the other question of importance that was considered by the Conference during the year was the old one of the collection of morbidity statistics and the attendance of chiefs of divisions at meetings called by Federal agencies.

Following the resolution that was

adopted at the meeting in 1922 requesting the chiefs of Federal bureaus to make all contact with states in regard to the collection of morbidity reports and the calling of conferences through the state health officers, further correspondence has been received by the Secretary. July 1, 1922, a letter was received from Surgeon General Cumming requesting a modification of the resolution, stating that his compliance with it would compel him to violate Acts of Congress and U. S. treaty obligations. The question has been so long discussed and Surgeon General Cumming's letter states his position so clearly that the letter should be printed in these minutes, and I shall quote portions of it:

"In a general way I may say that I agree with the principles contained in the resolution relative to state health work, but it did not occur to me at the time I agreed to it that the Public Health Service has certain duties to perform under the Acts of Congress which do not relate to state health work, such, for example, as national quarantine, prevention of interstate spread of certain diseases and the carrying out of the treaty obligations of the United States. The Act of February 15, 1893, provides among other things as follows: 'The Secretary of the Treasury shall also obtain through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary conditions of ports and places within the United States.' Under the International Sanitary Convention signed at Paris, January 17, 1912, the United States obligates itself to furnish to the other powers signatory to the treaty information as to the sanitary

conditions of the United States. You can readily understand therefore, that the collection of morbidity reports is a Federal obligation as well as a State and local one. As a Federal obligation it has nothing to do with the police powers of the State and is not an interference on the part of the Federal government in the State police powers, and is clearly within the duties which might be expected of the United States, especially in its relations with foreign countries.

"The Public Health Service has been receiving these reports from the cities as far back as 1888. They are published weekly in the Public Health reports and the annual reports received from these cities are published annually.

"When states are willing and able to furnish the information required under the law, it is a much more desirable method of collection. But where states are unwilling or unable to furnish the information, it is a mandate of Congress to the Public Health Service to seek to collect this information from municipal sanitary authorities."

This concludes the letter. No further action has been taken by the Executive Committee.

Following are the minutes of the executive committee meetings:

EXECUTIVE COMMITTEE MEETING, MAY 14, 1922, HOTEL RALEIGH, WASHINGTON, S. P. M.

Present: Dr. Kelley (chairman), Dr. Olin (secretary), Dalton, Chesley, Williams, Welch, Crumbine, McCormack, Hayne.

Absent: Rankin and Nicoll.

Consideration of Annual Report of Executive Committee: Dr. Olin read report of Executive Committee to be presented to Conference on the work of the Committee

for the past year. With a few minor changes it was voted to accept the report.

Resolution to be presented to Surgeon General: It was voted that a committee composed of Drs. McCormack, Crumbine and Olin be instructed to wait on the Surgeon General and take up with him the matter of calling committee meetings during regular hours of the meetings of the Conference and that they also present the following resolution on behalf of the Executive Committee:

WHEREAS, The Conference of State and Provincial Health Authorities of North America, by action of its Executive Committee, has notified the Surgeon General of the U. S. Public Health Service that the Conference deems the policy of calling meetings of section chiefs of state health departments inexpedient and not in the best interests of the Conference, and when it appears that such a conference has nevertheless been called.

BE IT RESOLVED, By the Executive Committee of the Conference that this action of the U. S. Public Health Service be considered as discourteous and proper cause for special conference between the Surgeon General and the officers of the Conference.

Resolution on Morbidity Reports from Cities to U. S. P. H. S.: That in order to secure accurate and uniform statistics, the Conference of State and Provincial Health Authorities requests that the Surgeon General of the U. S. Public Health Service discontinue soliciting, receiving or publishing morbidity reports from counties, cities or states except those received through the state departments of health and that state health departments make weekly or other reports when and if requested by the Surgeon General.

Resolution adopted.

Committee adjourned.

The evening of May 16th, the Committee met in informal session at the Hotel Raleigh. Various matters were discussed.

EXECUTIVE COMMITTEE MEETING, HOTEL STATLER, CLEVELAND, OCTOBER 16, 1922.

Meeting called to order by the Secretary. Present: Hayne, Welch, Crumbine, Chesley, Olin.

Good Health Week Sponsored by Commer-

cial Concerns: The Good Health Week proposed by the ILC Ventilating Company and other commercial concerns for the week of October 23rd was discussed. Believing that it was inadvisable to have two weeks, one backed by the National Health Council and one by the commercial concerns, and that the motive of a week sponsored by commercial concerns would be interpreted by the public to be more commercial than altruistic, it was unanimously decided to take no action to further the plans for the week.

Annual Meeting of Conference: It was moved by Dr. Hayne and seconded by Dr. Crumrine that the Conference of State and Provincial Health Authorities always meet at the same time and place as the American Public Health Association. Carried.

Dues in National Health Council: It was moved by Dr. Welch and seconded by Dr. Hayne that the Conference pay the same amount to the National Health Council for next years' dues as was paid in May, 1922. (Amount— \$50.00)

Exhibit for Smithsonian Institution: Dr. Fulton was appointed a committee of one to organize the exhibit for the Smithsonian Institution being organized by the National Health Council to present the theory of public health control by exhibits and materials furnished by voluntary state and federal agencies.

MINUTES OF MEETING OF EXECUTIVE COMMITTEE WASHINGTON, D. C., JANUARY 15, 1923.

The following members of the Executive Committee met at the Cosmos Club, Washington, D. C., on January 15, at 8:00 p. m., on the call of President McCormack. Present: Hayne, Williams, Garrison, Chesley, McCormack and Olin. Guests: Dr. W. C. Woodward of the A. M. A. and Surgeon General Cumming.

Reorganization of Federal Health Service: President McCormack made the following statement:

"Recently, as your president, I have had interviews with Drs. Chas. H. Mayo, S. J. Sawyer and Hubert Work, and they urged our organization to assist the President in formulating and obtaining favorable consideration by Congress of the creation of a new federal department which would assemble and take on the various bureaus having

public health and educational functions. They thought the matter was urgent, that the state health officers, the representative of the national medical organization and the Public Health Service could and should give the best technical advice in the matter. After conference with Drs. Sawyer and Work, I have asked you to come together to help the administration determine what is best for the public interest and to assist in having the program agreed upon enacted into law."

After much discussion, the following resolution was unanimously passed:

Resolved, That we approve in principle the assembling in a single proposed federal department of all the existing federal agencies having to do with health education and allied subjects, each continuing under a technical director as at present.

This action was approved by the guests present.

Appointment of Committee Member to Replace Dr. Black: Dr. John S. Fulton was the unanimous choice of the Executive Committee as the member of that committee in place of Dr. John T. Black, resigned.

Adjourned to meet with a committee of other medical organizations on January 16 at 10:00 a. m., at the office of Brigadier-General Sawyer.

REPORT OF COMMITTEE ON DRUG ADDICTION

By DR. FREDERICK R. STRICKER,

Chairman and State Health Officer of Oregon

The Committee on Drug Addiction in making its third annual report, desires to remind the Conference of the circumstances under which this committee was made a standing one. At the 1920 session, a motion was made to adopt a resolution that it was the sense of this Conference that the treatment of narcotic addicts is not a function for the consideration of the state health department. The Conference did not think it advisable to go on record in support of this motion and

amended it so that a standing committee on Drug Addiction was appointed for the purpose of study and control of drug addiction.

Drug Addiction seems to be nobody's business. The Federal government has made a revenue measure of the Harrison Act. State governments fail to see why they should interest themselves in this problem while the Federal government collects the fees. Counties and cities are forced to handle the criminal addict and they are simply swamped with no machinery to properly handle the problem. The addict in jail or prison may receive his dope by underground method or the drug is abruptly discontinued and in this way the chronic addict has the misery and mental anguish of repeated cures. Even an addict who wishes to be cured is at a loss where to go as no definite means are provided for his treatment and after care. Addiction can only be treated in institutions where the proper restraint is beyond question. Here we have a problem which no one is anxious to handle and in most states the legal machinery is not provided for properly taking care of these cases. This is everybody's business and consequently nobody's business. The passing of long and wordy resolutions has had its inning and it is now time for active work.

The traffic in narcotic drugs shows the United States to be the largest consuming country for which statistics are available.

The per capita consumption of opium is as follows: Italy, one grain; Germany, two grains; Portugal, $2\frac{1}{2}$ grains; France, three grains; Holland, $3\frac{1}{2}$ grains, and the United States, 36 grains.

This shows to what extent this traffic is a menace to the well-being and to the mental, physical and economic efficiency of our people.

In order to determine to what extent health authorities were interested in this problem, a questionnaire was sent to every state in the Union. A reply was received from every state excepting three. In these questionnaires we requested information in regard to the estimated number of addicts, to the reportability of addicts, the success of the enforcement of this regulation, special institutions for the treatment and care of addicts, how should a state handle addicts, and whether the health officer believes that narcotic addiction is a health problem or not. The questionnaire was a success in determining what health authorities do not know about addiction in their respective states.

In regard to the extent of addiction, no figures of any value are available except in the State of Pennsylvania. Taking these figures as a basis, it is estimated that one addict exists to every five hundred population. This is as near actual figures as is possible until more definite methods as are in operation in Pennsylvania, shall be placed in effect throughout this country.

Only three states require the reporting of drug addicts and in only one state has the proper machinery been provided for enforcing this regulation. Two states have made special provisions for treating addicts. Most state health officers believe that addicts should be cared for in existing institutions, state hospitals, psychiatric institutions and penal institutions. Only five state health officers are of the

opinion that this is a problem for the State Board of Health.

The Pennsylvania Department of Health organized in 1918 the most elaborate state conducted work for the prevention of narcotic abuse at present conducted in the United States. The State of Pennsylvania has demonstrated that the board of health can handle this problem if sufficient funds are provided for this work. The Pennsylvania law provides that no narcotic is to be given without a physical examination. Physicians are required to report all addicts and make written reports on the condition of addicts they treat. When a patient leaves his care, the physician is required to report in writing the result of his treatment. Physicians cannot prescribe narcotics to addicts except for treatment. The use of all narcotics must be strictly accounted for with address of patients.

The penalty for violation is a fine not over \$2,000, imprisonment not over one year and revocation of license. The results of the operation of this law are interesting. The enforcement of the law has reduced the amount of morphine used by the medical profession 60%. Two-thirds of the narcotics are used by the less capable one-third of the medical profession. Public institutions use very much smaller amounts than private institutions. Pennsylvania has demonstrated that much can be done by the State Board of Health in handling this problem. This is an activity in the field of preventable diseases and a fight must be made against the taking of habit-forming drugs. Public opinion is aroused and they are calling for the suppression of the traffic. Our produc-

tion must cease and we will have to take a part in doing our share. The time has come when all forces must act and call a halt to this growing evil.

The problem can only be satisfactorily solved by co-operation of all law enforcement agencies. The following activities are necessary to insure success.

(1) The enactment of a uniform state narcotic law which will supplement the Harrison Act. In this law, practitioners should be restricted to duly licensed physicians. The compulsory reporting of addicts and the necessary funds for the administration of this act are essential.

(2) Provision should be made for the compulsory and voluntary commitment of the addict. Cases should be held under restraint in an industrial institution until their is no doubt of their being able to care for themselves.

(3) Present state hospitals and penal institutions should have facilities for the treatment of addicts.

(4) The Jones-Miller bill provides that importation of narcotics shall be limited to amounts estimated as only sufficient to provide for proper medical needs.

(5) Smuggling must be controlled by international agreement. With the enforcement of the Jones-Miller bill, and the control of smuggling the wholesale traffic in narcotics will end.

(6) Heroin is a drug that has been removed from the list of "Useful Drugs" because on the whole its introduction has been harmful. The time is right for the absolute prohibition of the manufacture of heroin. This is the cause of the most atrocious crimes on record. A drug that has the potential power to cause the terrible crimes we read about daily, has no business

in the armamentarium of humanitarians.

(7) Education of the public is essential but this should be confined to facts and conservative statements.

(8) Narcotics are a known menace of unknown proportions. There must be a state agency to handle this problem and the public demands that the

health department undertake it. Prevention is the watchword of a health department and the prevention of narcotic addiction is a duty that we cannot shirk.

This is a problem which we cannot afford to avoid. It is a big job and every agency will have to lend a hand before it is solved.

NARCOTIC ADDICTION REPORT

	Estimated number of addicts	Regulation requiring reporting	Results of reporting	State Institutions for addicts	Should State provide special institution	How should they be taken care of?	Is narcotic addiction within the province of the State Board of Health?
1—Alabama.		No		No	No	Prisons	No
2—Arizona	3,500	No		No	No	Prisons	No
3—Arkansas		No		No	Yes	Prisons	No opinion
4—California	5—10,000	No		No	Yes	Private	Yes
5—Colorado.							
6—Connecticut		No		No	No	U. S. Gov't	Questionable
7—Delaware	2—3,000	No		No	Yes	Prisons	No
8—Dist. Columbia							
9—Florida		No		No		Prisons	No
10—Georgia.							
11—Idaho	250	No		No	Yes	Prisons	No
12—Illinois		No		No	Yes		No
13—Indiana.		No		No	No		No
14—Iowa		No		No	No	Prisons	No
15—Kansas		No		No	?		No
16—Kentucky	1,400	No		No	?		No
17—Louisiana	18,000	No		No	?		No
18—Maine		No		No	No		No
19—Maryland		No		No			No
20—Massachusetts		No		Yes	Yes	State Farm	No
21—Michigan							
22—Minnesota		No		Yes		State Asylum	
23—Mississippi		No		No	No	Prisons	No
24—Missouri							
25—Montana		No		No	?	Prisons	No
26—Nebraska		No		No	No	U. S. Gov't	No
27—Nevada.		No		No	Yes		No
28—New Hampshire		No		No	No	State Prisons	No
29—New Jersey							
30—New Mexico		Yes	10 cases 3 yrs	No	?		?
31—New York		No		No	Yes		No
32—North Carolina.		No		No	Yes		?
33—North Dakota		No		No	No		?
34—Ohio		No		No	Yes		No
35—Oklahoma	3,000	No		No	Yes		Yes
36—Oregon	1,500	Yes		No			Yes
37—Pennsylvania	20,000	Yes	Very successful	No	No		?
38—Rhode Island	150	No		No	Yes		?
39—South Carolina							
40—South Dakota		No		No	No		No
41—Tennessee.							
42—Texas	15,000	No		No	Yes		Yes
43—Utah		No		No	Yes		?
44—Vermont		No		No			No
45—Virginia							
46—Washington		No		No			Yes
47—West Virginia		No		No	No		No
48—Wisconsin.		No		No			No
49—Wyoming	400	No		No	Yes		No

The report of the Committee on Drug Addiction was read by the President after which Dr. Eugene R. Kelley of Massachusetts made the following statement:

This is a subject that deserves careful consideration. I was hoping that there would be a representative of the Pennsylvania State Department of Health here who would be able to tell

us what they are doing in that state. I am content at the present time to be regarded as one of those officials who are still rather skeptical as to the necessity for the state health department acting as the agency to control drug addiction. I cannot quite consider this in the calendar of public health work. There is a question in my mind as to whether this matter should be handled by health departments or whether or not in some cases there are other organizations in the state government just as well equipped and perhaps already organized to take care of it. There has been a great deal of agitation on the subject in Massachusetts, as in all other parts of the country, but the only recent step taken in Massachusetts has been to set aside a state farm, semi-correctional and originally designed for taking care of the vagrant, for the reception and treatment of drug addicts, both those committed definitely by the court and those entering on a voluntary basis. For a great many years this farm was under the state board of charities and the last few years since the reorganization of the State government it has been under the department of corrections. It is not a strictly penal institution. So far the greatest number of commitments to the farm have been those on a voluntary basis. They have a very able man in charge of the work. One with considerable experience. His conclusions are about the same as everyone else's; he is distinctly pessimistic as to the lasting value of the course of treatment given addicts in institutions. If we could all agree on the things that are vitally essential, the enforcement of properly designed federal legislation for the better control of nar-

cotic drugs would be a logical first step and such activities as we put into the matter at present could be largely devoted to creating sentiment to reaching this end.

I would like to hear more about Pennsylvania's system. That seems to be the most promising demonstration. I should be interested to know if Pennsylvania feels justified in drawing any conclusions at the present time as to whether or not the work ought to be done by state health departments.

DISCUSSION

The President: Dr. Rajchmann, are you in a position to state the attitude of the public health division of the League of Nations on this question?

Dr. Rajchmann, Director, Health Section, League of Nations: I have nothing to say except that there is an advisory commission appointed by a council of the League of Nations that have under consideration the use of narcotics with special reference to the matter of ultimate consumption. The Health Committee of the League has been requested to start an international inquiry to determine the consumption. This inquiry has been going on for about a year in Europe, New Zealand and other places. The figures are not yet comparable and we are not established on a very sound basis. It has been suggested that the whole subject be treated by a sub-committee consisting of representatives of the Health Committee and the Advisory Committee. This sub-committee has been working only a few months. They have decided first of all to work out a scientific method by which the ultimate consumption (the consumption for medical and scientific purposes) could be determined. What we intend doing is to make this investigation in three or four representative states in Europe. First, we took an area in Germany in which the population is insured and the health insurance scale is registered in the various clubs so that it is possible to determine what is the total amount of narcotics used by the prescribing physicians. We hope to do it in areas in England, Germany and possibly in Austria because practically all of the population of Austria is under the

national health insurance. However, I presume the report will not be out for eighteen months. It will be really valuable from a scientific point of view.

Dr. Matthias Nicoll, Jr., New York: The New York State Department of Health has placed itself on record as believing that it is not the duty of a state health department to assume the jurisdiction of narcotic drug control. A bill was introduced practically adopting the Harrison Act with certain minor changes and making the general practitioner finally responsible for treatment of addicts. The druggists were not particularly in favor of it; the medical profession showed no interest and the bill died. Jurisdiction over illicit drug traffic was placed in the hands of the local and state police where I personally believe it belongs. It is unfortunate that there is no one here from Pennsylvania to speak of their experience. The practicing physician is weighed down with red tape and though we may grant that the treatment of an addict by a physician with theoretical diminution of dosage is more or less of a farce, it is better that he should undertake it than force such cases to go to drug peddlers. An addict is never cured and never will be cured except by being placed in an institution and the drug taken away from him. Such institutions are not generally available at the present time.

At a recent conference in New York to which the medical men were invited, it was the consensus of opinion with which I think we will all agree, that not five per cent of the drug addicts are claimed by the medical profession. I believe that the medical profession must be trusted to treat their patients as they see fit. I do not think that they are causing addicts and I believe faith should be placed in their judgment. At the hearing to which I refer the Medical Superintendent of Sing Sing Prison testified that in the last five years drug addicts in Sing Sing have increased ten fold. He also made the statement that a large number of the crimes committed in the last five years were committed for the purpose of obtaining more dope. That is the situation as we see it in New York and probably it is true of other states.

Dr. Stanley Osborne, Connecticut: I wonder a little whether or not the number of

addicts is really increasing. We hear so many conflicting stories. We hear from New York City for instance that the number of prisoners who are drug addicts has been increasing but that the proportion of new addicts is less. In other words an addict is an addict and keeps on for years but because of the increasing difficulty in obtaining the drug apparently the number of new addicts is decreasing. On the one hand we hear that some hospitals can cure and on the other hand we hear physicians say that there is no cure. In regard to Sing Sing Prison the medical Superintendent there I believe testifies to the effect that because drug peddlers had obtained entrance to the institution there were new addicts which led to the increase in the total number of addicts in the institution. One or two physicians who run institutions for the treatment of addicts have claimed that they can cure their patients providing they can have complete control of the patient for a certain length of time. I think that this is a bright ray of hope in the treatment; until however that method is available to all institutions of course it would be impossible to carry out the treatment of the addict. A private practitioner who did not have complete control of his patient would have very little result, whereas if he had complete control, no matter how small or how large the institution may be some ray of hope is given. Whether or not it should be carried out by state health departments or other departments would depend upon whether or not that department was carrying on any hospital work. In Connecticut our department has no hospitals available for any diseases at all.

Dr. Tracy R. Love, Colorado: I am sorry to say we are among those not able to give you a report for this meeting. Due to legislative causes we were delayed in making our investigation of this matter. Recently I sent to all superintendents of hospitals within the state and also to jails and our state penal institutions a questionnaire. I hope some time in the future to receive some definite ideas from these questionnaires as to the number of addicts. In the work of prevention of venereal diseases I have come in contact with a number of these addicts and the same problem faces us that faces the rest of the country—how are we going to handle it? The government tells us they

cannot do it because they have no place to put the sufferers. We have arrived at a temporary solution of the matter. Our state home for the detention of women with venereal diseases necessarily receives a number of the women addicts. It only takes from forty-eight to seventy-two hours to get them so they are practically free from the horrible effects of drugs. If we can keep them for three weeks, and on account of the venereal disease condition it is usually possible to do so, we can give them real benefit. The women leave the institution free from the drug but the great problem is the environment after they leave. Until we can control or at least modify their environmental conditions after leaving the institution and after being free of the drug they are to a certain extent going back to their original condition. I do not feel that there is any great difficulty in removing the desire for the drug from the patient but it is the environment afterwards that makes the great trouble. I think our local municipal authorities all through the country realize that same thing. In regard to the question of smuggling I think there is one thing we must do, at least in our western states; that is impress on our local authorities the necessity for taking real action in this matter rather than allowing the smugglers to continue their traffic. Dr. Olin has had an interesting experience in the supervision of state penal institutions and I wish he would tell us something about it.

Dr. R. M. Olin, Michigan: After supervision of the medical side of the state institutions for eighteen months we have come to the conclusion that it takes a year to cure a prisoner of the drug habit. No man is paroled in Michigan by the Governor until the State Department of Health passes upon his physical condition. We pass on that not only as to his immediate physical condition but as to what is going to be the result in the community when he is discharged. We started passing these cases at the end of six months; now we do not allow them to go until the end of a year. We have no trouble now. I believe that if they could be put in an institution where they could be confined for a year and their minds treated, they could be cured. I do not believe that the number of addicts is on the increase. In the state of Michigan there are no addicts started in the institutions. Once in a while

a little dope gets inside but this is very seldom and when it does get in the quantity is so small that it is consumed more or less immediately by the old addicts. We place these men in solitary confinement for thirty days and then let them out of confinement gradually and keep watch of them. I would not consider that you could absolutely trust one of them; you cannot say that the desire is gone in thirty days; you have to watch them closely and it takes a year to be sure that it is out of their system, and their minds normal. Of course the thing is the mental treatment. This idea of gradually cutting the drug off does not appeal to me at all. If I had a relative who was an addict or if I were one myself and wanted to get rid of it I would go into solitary confinement and throw the key in the well for at least a year. In about six or eight months we will have some reports of the treatment of syphilis and other diseases in institutions that I think will be worth your reading.

Dr. Kelley, Massachusetts: This is a very interesting observation Dr. Olin makes and I would like to ask him a question. Is the Michigan system of such a character that all of these penal inmates can be followed up within at least one year after parole to determine whether or not they have reverted to the habit? If the Michigan system is planned with this end in view, I think that Michigan owes it to the rest of us to make a report of its results for the next two or three years. It may throw some light on a controversial subject. I am frank to admit that I am 100 per cent skeptical on the question of curing of drug addicts.

Dr. Olin: We have a parole system in Michigan under which men are paroled for a varying length of time to district parole officers. These officers report on them weekly and visit them. They have a complete report of their actions so that our final report will show at least a year after parole. I say a year will cure these men. We have not had any repeaters among the drug addicts whom we have kept a year but we did have at six months.

Dr. C. A. Harper, Wisconsin: I wish to ask Dr. Olin if the examination of the men on parole covers the entire physical make-up of the individual. It strikes me that the

program in Michigan of having physical examinations made of the individuals who are about to be paroled is a wise one. It stimulates the heads of the various institutions to give a little more attention to the physical care of the inmates. Turning these men out after several years of confinement with no financial means and with a bad physical condition is going to make them repeaters. A man physically bad gets bad mentally and I want to compliment the Michigan program in its farsightedness. What do you do with the individual whose term expires? Does the health department make an examination of them? When you find an individual who is physically unfit, do you retain him longer in the institution and how do you observe him later on? My observation in Wisconsin is similar to what has been stated here; that apparently the drug addicts are not increasing. I feel confident this is so. I believe, however, that we as state health departments are prevented from assuming any material jurisdiction over a program of this character because we have other troubles, more important so far as the health of the state is concerned. We have institutions to which the drug addicts may voluntarily go or may be committed by the judge of the court of record. However, the heads of these institutions are not specialists in the treatment of addicts and they look upon them frequently in an indifferent light. I must confess that so far not much has been accomplished. It is possible to find cities in the state where dope peddlers can be found. I have been interested in getting the opinions of some of these people as to the cities where it is practically impossible to get anything through the underground channels and as to the cities where it is easy for them. This leads me to believe that it is a police problem largely and that if the police were aggressive in certain cities the situation could be very materially helped. As far as Wisconsin is concerned we have not very much trouble outside of Milwaukee. It is interesting to see how easy it is in some cities to obtain this product and how well these peddlers know just what amount the men who are addicts can afford to pay from week to week. Of course you cannot always rely on the statements they give you. If their statements were not reasonably correct there would not be so much similarity.

Dr. Matthias Nicoll, Jr., New York: When Dr. Olin makes his reply will he tell us how he makes his diagnosis, especially with cocaine and heroin addicts?

Dr. R. M. Olin, Michigan: About eighteen months or two years ago we instituted a plan of daily and monthly reports from the prison physicians. The physicians are not appointed by my department but the appointments must be satisfactory to me. On a man's entrance into the prison he is given a complete physical examination, as complete as our prison physicians know how to make it. The daily report contains the numbers and the names of the men who are seen that day and what they were seen for. Then a complete examination is made of the man when he is up for parole. When a man has served his maximum sentence he is discharged, we have no other account of him at all but there are very few men who get that far. I did not just get Dr. Nicoll's question but I presume it is how do we know when they are cured of the habit?

Dr. Nicoll: Especially cocaine, heroin?

Dr. Olin: They do not repeat, that is all we can tell. From the report of the parole officer we have no record that the man has gone back to the habit nor that he is associating with the class of people who are known by the city police department as addicts and with whom he associated before going to prison. If they do associate with them then they are of course under suspicion. As a rule after they have been in prison for a year and under the parole officer for another year they cut loose from their old gang.

Dr. Kelley: If Dr. Olin will permit I would like to ask him another question. Just what do you mean—they do not repeat? Does that mean that when they do repeat they are subject to a revocation of their parole and sent back to prison?

Dr. Olin: Yes.

Dr. Kelley: You have no means of following them up outside of the parole system?

Dr. Olin: No.

Dr. W. C. Fowler, District of Columbia: I would like to know what the opinion is as to the total number of addicts that can

be really classed as fiends. How many addicts are there who are not in that class? How many are there in the higher classes of society who take the drug yet are not vicious and are not classified as fiends?

The President: Dr. Fowler, there is an answer to that question in the questionnaire and we are going to have to go on to the other subjects. The chair would like to compliment the State of Michigan on the very remarkable work that is being done in its penal and eleemosynary institutions. It is a natural feeling that we all have, I presume, not to take on obligations that it is possible to pass to other organizations, particularly to the police department. It is very plain to us however that police departments cannot possibly enforce narcotic regulations though it is easy to say they should do it because that absolves us from responsibility. The work in Pennsylvania and Michigan are really matters of great importance. If there are no objections, the report of the committee with the recommendations will be referred to the Committee on Resolutions.

REPORT OF THE COMMITTEE ON VACATIONS, TOURISTS AND RESORTS

By R. M. OLIN, M. D.,

*State Health Commissioner of Mich.,
Chairman*

The popularity of vacations from the routine of regular work is nothing new, but with the changes in our manner of living and the facilities for enjoying ourselves, the methods employed in spending vacations are undergoing development.

Modern business demands so much more concentrated effort than was the case a few years ago that a change and relaxation from monotony seems to be quite a necessary factor in the preservation of health and business efficiency.

A few years ago a vacation meant a period in the summer spent at the seashore, mountains, on the lake or in the country in a definite spot. The location depended largely upon the financial standing of the individual. Resorts were to be found suitable to the pocket-book of almost anyone, all the way up from a cabin or tent in the woods to the most exclusive summer hotel, in which Bill Nye used to say, "It cost him \$1.00 or \$5.00 a day exclusive of board and lodging". Many families made a practice of going to the same place year after year; the mother and children to spend the entire summer and the busy professional or business man, head of the household, being with them as much as his duties would permit.

The idea seems to prevail quite generally that to go to the country or at least to some other place than the habitual place of residence will insure healthful surroundings. This may or may not be true. Those of us who have come into contact with summer resorts from the standpoint of the professional sanitarian are inclined to doubt the soundness of this idea. At many of the larger resorts the buildings are crowded together much more closely than would be permitted in an up-to-date city and the sanitary conveniences usually accepted as satisfactory in a summer resort would not for a moment be tolerated in the city. The difficulties of obtaining water and milk free from dangerous pollution is a matter of no little seriousness which is dimly realized by the ordinary vacationist. But few resorts provide a water supply for general use and the individual cottager must construct his own well often in close proximity to his own or his neighbor's toilet, with consequent

danger to the health of himself and family.

The lack of convenience for the prompt and efficient removal of all waste products is very crude, except in the larger and more pretentious resorts.

There was a time when medical science believed that many ailments were directly produced by bad odors and bad air and it is probably due to these early teachings that so many people entertain the idea that country air is pure and that it will build up the system, if not indeed cure dangerous illnesses. No doubt, there are certain advantages in country air, but we know that the quality of the air, good or bad, has much less to do with the communication of diseases than was formerly believed. It would seem that the chief advantages to be gained by the vacationist are:

Change in habits of life.

Rest.

Recreation.

Quietness.

Against these advantages must be balanced the inconveniences and dangers above alluded to. Until the general public realizes that serious disorders are transmitted through the medium of impure water, milk and food, the vacationist is not likely to demand surroundings at a summer resort which will be in keeping with those he enjoys at home and the summer season will continue to produce its share of summer resort typhoid.

Resorts may be generally divided into four classes:

1. The summer community having a population of say 2,000 or more in which there is a governing organization centered in a board of trustees or a

similar body, and which is provided with a general water supply and sewer system.

2. The smaller resort which has neither of these utilities but has a governing organization.

3. Smaller clusters of private cottages, often with a hotel, which may or may not own several cottages for rent.

4. Camping places for transients.

The first class of resorts gives but little concern to the sanitarian because good water is provided and there is an efficient means for the removal of liquid wastes. The organization is in a position to supervise the quality of foods which are sold on the grounds. About the only difficulty encountered in such a resort is the small size of the lots laid out when the resort is opened, which results in overcrowding.

The second class presents the most difficult problem to the sanitarian. In these cases the resort organization seldom has money enough available to provide the facilities which the inhabitants ought to have. It often lacks knowledge of the best method of sanitation and under such circumstances it is not uncommon to find the members of the governing board lacking in courage to enforce the rules as vigorously as they should. In this class the privy and private well are unavoidable, and if health is to be conserved privy regulations must be vigorously enforced.

The third class presents less problems because the majority of the cottages are owned by the occupants and they are likely to be far enough apart so that the dangers present in class 2 are not of great importance. The chief disadvantage here is the lack of a governing organization and advice to indi-

viduals is the only way of inducing improvements.

The problems of the fourth class are a development of the last few years. The automobile has changed vacation habits very materially. It is only a relatively short time since the prices of automobiles have come within the range of the financial standing of almost everyone who takes a vacation.

Resort proprietors find that many of their people no longer remain for the entire season but go from one resort to another in their own cars. Many tourists find it convenient and enjoyable to do more or less camping by the wayside. This may be only a picnic meal at noon with lodgings and the other meals taken at a hotel along the route. In some cases, however, trans-continental trips are made with the aid of an automobile, tent and cooking outfit with no lodging or meals taken at hotels. Between these two extremes are all varieties and combinations of camping. With no facilities provided for camp sites the tourist is obliged to rely on his own resources and he suffers or prospers according to his own intelligence, information and ingenuity. Promiscuous camping by tourists on the watersheds of public water supplies along the roads, in country school house yards, and on private property leads to nuisances, if not indeed to a menace to the public health.

The logical solution appears to be the establishing of camping centers provided with enough facilities and conveniences for the use of the tourist to encourage stopping at these centers rather than at any point the fancy of the occupants of the car might dictate. If laws were passed prohibiting promiscuous camping, it would doubtless

be very difficult to enforce them and the camping centers should be made so attractive as to influence the tourist to frequent them in preference to an isolated location.

Centers should be established by the state or the municipalities and be subject to reasonable and definite rules preferably laid down by the State Department of Health, and they should be provided with one or more caretakers having police authority to assist the campers and to regulate their activities for the purpose of enforcing the regulations. If private persons or associations establish camping places for the public for the purpose of gain, either from a charge for the privilege or to influence the spending of money at resorts, they should be inspected by the state health authorities and required to provide the same conveniences, supervision and regulations as is demanded of the municipalities. These camping centers must be provided with a water supply which is beyond question. They must have toilet facilities which in no manner would endanger the water supply or food stuffs used on the grounds. A sufficient number of receptacles for garbage and trash must be provided in convenient locations and systematic provision made for the removal and disposal of their contents. All garbage cans, rubbish receptacles, privies, and water supplies should be distinctly indicated by conspicuous signs. Disorderly conduct and unreasonable noise should be prohibited. It is desirable that some provision for shelter against the inclemency of the weather be provided. If concessions for the sale of lunches, etc. are granted they should be subject to strict regula-

tions both as to quality of the merchandise and the disposal of wastes.

The establishment of automobile camping places by municipalities is doubtless prompted to some extent by the desire of the business man of the community for the patronage of the tourists. This is a laudable spirit provided it is not made conspicuous and provided the city is willing to meet all expenses necessary to safeguard the health of their temporary guests. The profits of the merchants can no doubt be increased, but the spirit of hospitality and welcome which the city justly feels toward its visitors should be emphasized.

Signed,

R. M. OLIN, M. D.,

Chairman.

DISCUSSION

Dr. Olin: There are only two or three states that have gone far enough to establish rules covering these tourists' camps. I believe that within the next year or two each state will formulate such regulations.

Dr. S. J. Crumbine, Kansas: The question of tourist travel is one that is increasing by leaps and bounds and with it comes the problem of the distribution of certain of our communicable diseases. Mine is not a tourist state but we are along the highway to the Rocky Mountain section so that we have during the tourist season almost a continuous line of automobiles crossing the state; thus has come about the institution of tourist camps. So important was this problem in my judgment and so many complaints were received from the tourists going through the state concerning the distressing conditions in some of the camps that the State Board of Health made rather an exhaustive investigation. A complete questionnaire was sent to every municipality in the state to secure definite information as to the location of all the camps, their equipment, methods of waste disposal and general manner of supervision. This survey was carried on either by the municipal

Chamber of Commerce or some other local organization. The answers to these questionnaires gave us some definite information and formed the basis for getting together some reasonable regulations. These regulations were formally adopted by the State Board of Health at their quarterly meeting in March of this year, and gave the supervision of the tourist camps to the State Board of Health. The point that I think will be interesting to the boards that have not yet undertaken such supervision, is that where we expected opposition to this supervision which we assumed without any specific laws to back us, except that of our responsibility for the health of the state, we were gratified and surprised to find that it was welcomed by the municipalities who seemed to realize that it was one of the great local problems with which they had to deal. A tourist camp is a real asset to the town, for information regarding the desirability of a certain camp is passed on from tourist to tourist and so the town is advertised. In the questionnaire which we sent out we called the attention of the municipality to this particular point. It has been the greatest pleasure to find how decidedly they welcomed our assistance; the problem has been much easier than we expected. In addition to the establishment of these rules and regulations we have by resolution made it the duties of the local boards of health to make at least two inspections during the year and to make definite reports to the state department of health. The first inspection was to be made not later than the first of May preparatory to the opening of the season and the second inspection not later than the first of August. We expect to have some definite information from these reports. We of course expect the local departments of health to carry out these newly imposed duties which by law we are empowered to give them. It is a real problem and we have undertaken to find its solution in the manner indicated.

Dr. A. J. Chesley, Minnesota: Minnesota is a vacation state. It has more than 10,000 lakes and probably \$100,000 was spent in advertising its attractions this year. The 1923 legislature empowered the State Board of Health to make regulations governing the sanitary conditions in tourist camps, summer hotels and resorts. At the last meeting

of the National Association of Park Executives in Minneapolis an outline map of the United States was prepared, showing the number of cases of typhoid sick in Minnesota but infected elsewhere. From 1913 to 1921 there were 361 typhoid cases infected outside of Minnesota. Of these 310 came from 29 other states; four from Mississippi River boats; 26 from Great Lakes boats; 21 from Canada, and three from Europe.

As tourist traffic increases, this menace will become greater. The advertising of these attractions and building of good roads multiplies the tourist traffic. The State Board of Health passes upon the sanitary features of public water supplies when new systems are installed or material changes made in existing systems but cannot compel changes with regard to water supplies in use at the time the regulations on this subject were promulgated. About fourteen towns in Minnesota secure water from lakes or streams open to pollution. Several of these places are in the lake region. A few years ago only the natives used the supply. Now hundreds of summer residents and thousands of transients use these supplies, about which they know nothing.

Before the legislature met, the State Highway Department, Dairy & Food Department, State Hotel Inspector and State Auditor considered with the State Board of Health their common responsibility and worked out a plan of co-operation to avoid duplication of effort and expenditure. The State Board of Health was to supervise water supplies, sewage and waste disposal and communicable diseases, but our legislature apparently suspected that the State Board desired to extend its authority and that any local board of health could handle camp sanitation, so the appropriation for our work was refused.

Information regarding existing conditions has been collected for more than 150 tourist camps. Excepting Minneapolis, St. Paul and Duluth, no local facilities exist for proper examination of water supplies. The Division of Sanitation of the State Board of Health cannot, with its limited appropriation, make the necessary inspections for the sanitary safeguarding of tourists. This must be left to the local authorities.

Dr. C. A. Harper, Wisconsin: Since Michigan and Minnesota have advertised their resorts pretty thoroughly and Wisconsin is in stiff competition with them I would like

to say that we have just submitted a bill to the Governor which undoubtedly he will sign providing for the establishment of water and sewage districts in outlying towns and granting considerable authority to the state board of health. The provisions are similar to those that have for many years been granted cities and villages in outlying sewer districts. When you come to Wisconsin you will find that the State Highway Commission has established several hundred camp sites along the main thoroughfares selected for their sanitary environment. These sites for tourists are developed at state expense and safe water supply provided and substantial old fashioned sanitary conveniences are constructed also. The local board of health and the State Board of Health keep in touch with the sanitary conditions of such sites for the safety of all who may make use of them.

REPORT OF THE COMMITTEE ON MEDICAL SERVICE

By MATTHIAS NICOLL, JR., M. D.,
*Deputy Commissioner, New York
State Department of Health, Chairman.*

Believing that the most important problem in the field of medical practice which today confronts the people of the United States is that of medical service to the inhabitants of the rural districts, your committee has attempted to secure data regarding such service by means of a circular letter addressed to all the State health officers requesting information as to the condition of affairs in the rural districts, first in general, as to the adequacy of medical service in such districts; and, (2) the proportion of inhabitants to the practitioners available; (3) the average age of the practitioners, and (4) the increase or decrease in the number of practitioners during recent years.

Replies have been received from 36 of the 48 States. The information ob-

tained has naturally been of varying degrees of value, dependent largely on the facilities of the State health officer for obtaining it. Nevertheless, it has served to create a picture of conditions relating to medical service in rural districts which is most enlightening, and which may be summed up as follows:

1. There is a universal tendency for physicians to abandon the rural districts in favor of the cities.

2. The number of those remaining belong in a very large proportion of cases to the older generation.

3. There is little or no tendency for recent graduates to seek practice outside of the large centers of population.

4. In hundreds of rural districts medical care is most inadequate or absolutely lacking.

Replies from 30 of the States indicate that the condition of affairs differs only in degree, varying from serious to desperate.

Of the other States from which information was obtained, five seemed to be satisfied with the condition of affairs. One of these—Rhode Island—has only one rural county, but strange to say the State of Minnesota is included in this number, and according to Dr. E. P. Lyon, Dean of the University of Minnesota Medical School, the people of the rural districts, though not satisfied, are well cared for. A study of the statistics furnished by Dr. Lyon, however, would seem to throw some doubt on the accuracy of his conclusions, certainly as regards the smaller districts in the State.

It is not possible in a report of this length to do more than present some of the more striking comments received from the various State Health officials.

From California the Board of Medical Examiners reports inability to furnish the information required, for the reason that the records of that State simply show classification of physicians and surgeons, osteopaths, drugless practitioners, naturopaths, chiroprodists and midwives practicing in various counties, with no possibility "of segregating those in the cities from those engaged in practice in the rural districts." The Secretary-Treasurer of the Board while agreeing that the modern tendency is for physicians to congregate in the larger cities states that he understands from statistics compiled by the American Medical Association that the country communities are still will supplied.

Another communication from a State Health Officer is to the effect that there has been a general tendency on the part of the legislature to license anyone to practice medicine who can prescribe hot foot baths, chill tonics or Gray's ointment. "Fortunately," he adds, "the legislative license in most cases restricts the practice to the county in which the 'expert' resides."

The report from Kansas states that in one county with a population of 6,182 there are but 2 doctors—one 47 years of age and the other 52. In a list of 12 counties with 20 doctors, but one is a recent graduate.

In Kentucky 40 counties are without adequate medical service, one or more communities being in dire need of more physicians; and one county without a single licensed physician. The majority of physicians in rural counties are at or past middle age.

In one county in Louisiana the ratio of physicians to population is 1 to

1385. But 1 physician in this county has been in practice less than 10 years.

In Maine there are 12 or 15 places in which the need for physicians is great.

In Mississippi many counties with a population of twenty to thirty thousand have physicians only in the large centers, leaving the interior without a single resident physician. In the whole State the proportion of physicians to population is 1 to 1,120. Remote districts are ten to fifteen miles or more from physicians. Death certificates with "no attending physician" signed are on the increase.

Several large counties in Montana have but one physician, and in spite of a bonus of \$100 a month offered by the county commissioners in one county, no physician has been obtained up to date.

In one county in Nebraska with a population of 1,433 and an area of 742 square miles, there is no physician.

Sussex County in New Jersey, which formerly had one or two physicians, has none.

In New Mexico the ratio of physicians to population is 1 to 2,000. Five physicians must travel 185 miles to reach the opposite end of the county.

North Carolina states that there are fewer physicians to the population there than in any State in the Union, with possibly one or two exceptions.

In North Dakota some counties have no physicians and some only one or two.

In York County, Pennsylvania, outside of the city of York there is a rural population of practically 100,000 to be covered by 37 physicians.

In Tennessee there are counties with a population of seven or eight thou-

sand with no more than 4 physicians. In such counties there are practically no roads and such as there are are almost impassable in winter.

In Vermont out of a total of 248 towns and cities 102 are without physicians when recently checked up. This includes a number of towns which formerly supported anywhere from one to three or four physicians.

In Virginia 12 years ago in 39 counties there were 364 physicians. There are now 258. In one of the rural counties the ratio of physicians to population is 1 to 3,370.

In Washington no physicians in the rural counties have been in practice less than 10 years, and there is an entire absence of medical service in a few of the counties.

In West Virginia in a remote rural section there is scarcely any medical service. One county of 648 square miles and a population of 11,713 has six physicians—one in practice 15 years; one 19 years; one 25 years; one 26 years, and two 42 years. Two of these men are over 70 years of age and one nearly 80. Another county of 574 square miles has a population of 9,601 with but five physicians, who have been in practice from 12 to 33 years.

Wisconsin without giving details states that the condition is serious. One county with a population of 3,646 has one physician. Another with a population of 10,462 has 3 physicians.

In New York State during the past three years, the State Department of Health has succeeded in placing in the rural districts some 50 physicians to meet over 90 calls for medical service. Questionnaires addressed to these physicians have shown in a number of cases that they are making a good liv-

ing. A number complain of the arduousness of the work; many of the lack of facilities to practice scientific medicine, and still others of the lack of appreciation among rural inhabitants of the value of medical service.

The situation in New York State, of which a careful survey has very recently been made, shows but little improvement during the past few years. In spite of its immense population—nearly 11,000,000—there are areas of several hundred square miles with 1,500 or more population within which there is not a single resident physician.

In one typically rural and prosperous agricultural county with an area of 655 square miles, having a population in 1910 of 38,000 and in 1920 of approximately 37,000, there were in 1912, 62 physicians and in 1922, forty-four. The average number of years in practice at the present time is $27\frac{1}{2}$, and during the last 10 years practically no physicians have entered the county to practice.

This then is the problem which confronts the people of the country. It must be solved by its health officials, the organized medical profession, medical educators and the legislatures. The causes for the condition have been discussed for years, have been pretty well agreed upon, and need not now be reviewed. Your committee has on more than one occasion called attention to the defects of modern medical education in fitting men for general practice. It is a hopeful sign that at the recent Congress on Medical Education held in Chicago there was a very general agreement among the speakers that medical education as a whole should be so co-ordinated and revised that every branch of medical knowledge

should be imparted with the main purpose of turning out general medical practitioners taught to think for themselves, and with only a general knowledge of the so-called specialties, such as will enable them to take care in an efficient manner of the majority of cases met with in their practice, and the ability to refer to qualified specialists patients requiring special advice and treatment. It is to be hoped that the results of this policy will in time turn out general practitioners of independent character who will be willing to cast their fortunes in the more remote districts. But this can be realized only in the distant future.

It would seem that the problem to be solved is dependent on a world-wide psychology, but the demand for its rapid solution is imperative. Many practical suggestions have come from various health officials and medical educators. In a number of states local communities have worked out their own problem on a village, town or county basis. In the State of New York at the session of the legislature just closed a bill was introduced at the instance of the Governor, after consultation with the heads of all of the county medical societies of the State and representatives of other medical organizations, which may be said to be an evolution or remains of the more elaborate and comprehensive so-called Health Center bills which met with such opposition, especially from the medical profession. The present bill is short, and if not endorsed directly by the medical profession, at least was not opposed by it. Briefly, it provides that the Board of Supervisors of a county may appropriate any sum of money for any public health work with-

in a county which does not contain any first or second-class cities. In other words, strictly rural counties. Such work may include the establishment of hospitals, clinics, services of a public health nurse, and presumably, subsidizing local physicians. On the first day of January each year the amount so appropriated by the Board of Supervisors shall be transmitted to the State Comptroller. The purposes of such appropriation shall be approved by the State Commissioner of Health, who is also empowered to formulate standards of construction, equipment and administration of the work contemplated. On receiving such approval of the State Commissioner of Health, the Comptroller of the State shall draw his warrant for one-half of the amount appropriated by the county.

This legislation may be of great service in meeting the situation under discussion, not only in New York State but in other states that may see fit to adopt this or a similar law.

There can be no question that the unit for public health work is the county, and county officials should be made directly responsible under the supervision of the State officials for conditions regarding health within the county, and your committee believes that in spite of theoretical objections to so-called State Aid for public health work, as a matter of practical necessity it can not be avoided in thousands of counties throughout the United States that would be unable or unwilling to meet the situation entirely from their own resources.

It would seem to your committee that the immediate necessity is to provide in some way throughout the rural districts for the establishment of small-

er or larger open hospitals, perhaps on the cottage plan; a very great extension of public health nursing service and in places where physicians are not available provision for visiting and bedside nursing service in local communities. The value of facilities for the more scientific practice of medicine in rural communities, such as laboratory service and the like, can not be over-estimated, but in advance of such attainment the problem of medical and nursing care, even without the refinements of scientific practice, is paramount. It is no exaggeration to state that the people of the cities, including a large number of the foreign born, are receiving infinitely better medical care and treatment than thousands and thousands of those of the best American blood, who have been and must be the backbone of the nation, and who still cling to the open spaces of the land with only such care of their health as may be furnished by those without technical knowledge or training and such as was available to their ancestors in the pioneer days of this country.

The health officials of the State are fully aware of this fact and are trying to impress it upon others who have the means of alleviating it. It is to be hoped that their efforts will in time be successful.

MATTHIAS NICOLL, JR., New York
Chairman.

JOHN D. McLEAN, Pennsylvania.
WALTER M. DICKIE, California.
ENNION G. WILLIAMS, Virginia.
W. S. RANKIN, North Carolina.

DISCUSSION

Dr. S. J. Crumline, Kansas: I rise to give a brief recital of the two ways in which we are beginning to meet the problem in Kan-

sas. First, it is being met through county hospitals. We have three modern well-equipped up-to-date county hospitals in the state which in a measure are helping to solve this problem. I think that we can never hope to have a modern educated physician go to a strictly rural community where he has no hospital or laboratory facilities. Thus far these three counties are making a very pronounced success. Only a few days ago I had the opportunity of meeting with one of these counties in their annual celebration of "Hospital Day." The meeting did show that the people appreciate the county hospital. One speaker in mentioning the wave of economy that is sweeping over the country stated that the local county hospital did not have an income that was equivalent to its cost. He was answered by one of the speakers: "We do not measure returns in a hospital in dollars and cents but rather in restored health and prolonged life, just as we measure the output of our schools and churches by cultured minds and rescued souls."

The other method was used in Southwest Kansas, in a community occupying perhaps one-third of the western part of the county in which there was not one physician. Some of the people of means, not the medical profession or health department, called a town meeting to discuss the question of obtaining medical service. At that meeting a subscription list of \$3,000 was made. They offered a recent graduate of a medical college \$3,000 a year in addition to his fees and they got their man. The population of the entire community is about three thousand with a town of 450. The experiment has been going on now for about eight or nine months and I understand that both the doctor and community are well pleased.

Dr. C. B. Crittenden, Tennessee: I would like to call to your attention the actions taken by the people in the rural sections of Tennessee to remedy the conditions outlined in Dr. Nicoll's paper. We, as many of you, have just gone through a legislative session. A bill was introduced to repeal the preliminary medical requirement law. The people hoped by that means to make it possible for a young man to practice medicine who did not have more than a high school education or possibly a grammar school education; they thought this type of man would settle in the rural sections. Fortunately

for us the governor vetoed the bill. Of course in the days when there were no roads it was impossible to have a community physician. Today if a physician lived in a county seat he would cover a great deal more territory than he did in the past. I can answer Dr. Nicoll's question by saying that there was one county of 7,000 in which there were only four doctors. Another thing which seems to be driving physicians from rural sections is the economic condition. The farmer was the first man to feel financial depression so the doctor got out while the getting was good. He is going to the town where he can collect his money more easily, and in greater abundance.

Dr. James A. Hayne, South Carolina: I want to apologize to Dr. Nicoll for not answering his questionnaire. I have it very thoroughly in my system to never do today what I can do next week. The condition in my state is like it is in the rest of the states and we are trying to solve the problem in various ways. One of the latest methods was adopted by a school district where they organized a "Keep-Well Club." They hired a physician whose duty it was to keep the children in that school well. If he did not keep them well he had to attend them when they were sick. This worked out very well in that community because there was only one doctor there. I do not know what would have happened if there had been any competition or if it had been a larger community. The chief difficulty is that the medical profession is no longer a profession but is fast becoming a business similar to the plumber's trade or any other competitive business which is out to get money. Whether he benefits the public or not depends entirely upon whether it will help him to make money. That being the case the problem seems to me to be almost impossible of solving unless the personnel of the medical profession changes greatly in the next fifteen years. All of you attended the St. Louis Medical Convention and you must have blushed for shame as I did, as you listened to the arguments put forth why the public should not be benefited by the medical profession through clinics or any method where the public could be helped for a nominal fee, because if this was done the medical profession would suffer. If that is the attitude of the entire profession supposedly represented by these delegates, then

the problem is indeed hard to solve. I myself do not see why it could not be solved by the methods suggested by Dr. Crumline or by the law that was introduced in New York State but that is State Medicine and State Medicine is a bug-a-boo as long as the medical profession looks upon it as destruction to their profession.

Dr. A. J. Chesley, Minnesota: There has been a shortage of physicians in Europe owing to the war. Particularly in Poland large districts had no medical services. If Dr. Rajchmann would tell us about conditions in Europe, I am sure that the members of the Conference would learn some interesting facts.

Dr. Rajchmann, Director, Health Section, League of Nations: I am very highly honored by your invitation. If I understood what Dr. Chesley's suggestion was he referred to the fact that during the war and after the war in large areas in Europe there was a shortage of doctors. In 1919 in one of the industrial districts in Poland having a population of 100,000 only one medical man served the entire community. That is in Southwest Poland, and not in the Eastern section which I think is the district Dr. Chesley was referring to. In the Eastern district there were very large tracts of territory involving at least a quarter million population with very few medical practitioners. The situation seemed very bad and we did not quite know what method should be taken to remedy it. In the first place much as we desired to introduce the hospital system on a modern basis, that is, throw the whole financial end on local authorities, we found that it was impossible on account of the financial condition of the country. The counties and municipalities had absolutely no resources. Consequently all of the hospitals had to be taken over by the state. As a second measure we thought of introducing dispensaries. Before we put these measures into effect, the war had come to an end and the physicians had returned to their districts. At the present time there is a shortage but in some way the situation has become very much easier. I believe this refers back somewhat to the increased prosperity of the farmer. The farmers have become the privileged class in the community and therefore the rural districts have become attractive to the medical profession,

more so than the towns where the population cannot afford to pay as high fees. On account of this economic situation the problem is slowly solving itself. The situation is becoming so attractive from this point of view that the five or six universities that offer medical courses cannot at this time take care of all the students seeking admission. I think that in this way the situation has found a kind of normal, regulating factor. We have the National Health Insurance Act. In the urban areas, very nearly thirty per cent of the whole population is insured under this Act. Now the Act has been extended to agricultural labor. This of course is working itself out very slowly and it is too early to say whether or not it will prove a success in the rural districts. This will be a crucial test because Poland is an agricultural country, about 86 per cent of the population being farmers. At present, there is a tendency among the leaders of health insurance to substitute institutional care for private medical treatment.

AFTERNOON SESSION

May 14, 1923.

THE PAY CLINIC AND THE COMMUNITY

By Dr. BIGELOW,

Director, Cornell Clinics, N. Y. City.

I wonder just what features of the Cornell Clinics will be interesting to you. Advances in public health and in preventive medicine nowadays are in the individualizing of the patient. It is in this individualizing that we have tried to differentiate the Cornell Clinics from the usual dispensary. We have come in contact with the profession locally both for co-operation and occasionally, unfortunately, for conflict.

First, a few words on the purposes of the Cornell Clinics. When the Cornell medical college was opened in 1900 a dispensary was started in order

to obtain teaching material for the students. Some two years ago the dean and members of the faculty became interested in the problem of furnishing sound medical service to persons of moderate means. It has long been known both in this country and in Europe that the persons of restricted incomes obtain in general the poorest service medically. The poor have the free dispensary and the well-to-do have the field of specialists from which to draw. The Clinic accordingly was reorganized and this question was asked: Can sound medical service be furnished to persons of moderate means at cost that is without any stigma of charity and at a rate which these people can afford? It was called a "Pay Clinic". The use of the word "pay" was to remove the idea which is commonly associated in the lay mind with the word "clinic". The layman is not in general familiar with the type of clinic represented by the Crile Clinic which from what I have heard is not charity, or the Mayo Clinic where charity is not dispensed. For that reason the vicious word "Pay" was used. There has been a certain amount of disturbance as a result of that title. I wish we could call it something else—that someone might invent a new word.

The Pay Clinic has been and still is, frankly, an experiment, but is being perfected on the basis of evidence that is being collected. How does the Pay Clinic differ from the conventional free dispensary? In the first place the patients pay for what they get and it is perfectly surprising to see with what avidity they receive that information when they come, that they are not receiving in whole or in part charity but are getting exactly what they pay for. In the second place, the doctors are

paid. Now it has been said that with the paying of doctors many of the administrative difficulties associated with the usual dispensary would be done away with. I think our administration problems in the Cornell Clinics are no less difficult than in the free dispensaries. It would be a matter of regret to me if the pay of the doctors were sufficiently large to be the incentive for work at the clinic. We want men who are interested in clinical studies, men who are anxious to be associated with a teaching institution. If we got men who were there only for the remuneration we would in all probability give a miserable quality of service. In the third place we aim to individualize the patient. The great criticism that the layman usually gives is in this regard. He feels like a piece of horse meat in a sausage machine, he is herded in one door and out another. We are trying to individualize and it is somewhat difficult being actually in the mill to be sure how successful we are. Of course the problems that are brought to the administrative consciousness are always the worst and you sometimes feel that the machine is about to fall to pieces. I heard an outsider say that the first thing that struck him about the Clinic was the atmosphere. Now this is not a reflection on our ventilation but I think that it means, in part at least, that we are successful in our plan of individualizing. All of you probably have had the experience of going into a large dispensary and trying to find somebody. There are people in more or less white clothes all busy and when they see you looking they turn their back. You stand on one foot and then the other and finally get

up courage to ask somebody. We individualize at the front door. We have a boy who has a surprisingly good manner and smile and his job is to meet everybody as they come in.

There are three ways in which I feel sure we individualize the patient. In the first place the patients all come by appointment. We enable him to see the same doctor each time he comes, which to a certain extent builds up the personal individual interest which is the strongest factor that holds people in a private office. In the second place, all our departments have a limited capacity and when that capacity is reached, no other patients are admitted on that day. Of course exceptions are made in a few emergencies. In the third place we have in each clinic, an intelligent clinic executive. These people are socially trained. The term social worker was intentionally left out. There is a connotation to that word. We have a very excellent group of young women who contribute as much as any one factor to the atmosphere of the Clinic which has already been mentioned.

In what point does the Clinic come in contact with the private practitioner? Perhaps the Diagnostic Clinic is as good an example as any. Many private practitioners have in their offices patients who can afford their fees but who cannot afford fees for specialists or special work such as X-rays, laboratory examination, etc. For that reason the Diagnostic Clinic was opened and a fee of \$10.00 was charged. For this \$10.00 a patient makes as many visits as are necessary to obtain a diagnosis and to have certain routine blood and urine examinations. There are additional charges at regular clinic rates

for special examinations, such as X-ray and special laboratory work. Patients are admitted on a letter of recommendation from their physician. This is not new. The Massachusetts General Hospital has been running such a clinic for some time. We differ from other diagnostic clinics in that we give treatments when requested by the physician. The Diagnostic Clinic is open at the same hours that the General Clinic is open. In the first 19 months 2,000 patients had been referred by 1,300 different physicians. In New York City there are something like 9,000 physicians. Then about one in every six doctors sent patients to us. As time goes on, the number of doctors sending more than one is increasing. One sent us 87.

The question has been asked whether the Diagnostic Clinic is being properly used or whether the practitioner might use us to get rid of their financially incompetent patients, keeping them as long as they can pay and then send them to the Cornell Clinics for treatment. We thought we might answer that question by a study of the diagnoses. The first 1,500 diagnoses have been reviewed recently and the general impression is that the majority of cases referred to us are problem cases requiring detailed study. In general the Clinics are being properly used. There are certain doctors who fret at the delay in getting the final reports which are sent out in every case. Of course the value of these reports go up in direct proportion, with the rapidity with which they are sent out to the doctor. But in certain cases, there is inevitable delay.

Another point of contact with the practitioner which we had this year

was through the Health Clinic. Health examinations are the fad. Most medical fads have some truth in them and a great deal of bunk, the tonsils, the appendix, the vitaminic yeast cake—for instance. We proceeded very carefully, obtaining all the available information on the subject, and feel now that in some respects our policy is sounder than that of many health examinations that are given. No report of findings is given to the patient. The patient is only told what to do. Health examinations are of value to the individual so far as they do something about the findings. It does not help the individual to know that his blood pressure is 180; what helps him is to know what he should do for that blood pressure. If we do not look out, from carelessly considered health examinations, we are going to build up a group that is going to be worse off than if its members had never been examined. Our first rule, then, is that they shall never be given a report but shall be told what to do about the findings. In the second place the doctor who makes the examinations gives verbal instructions to the patient. In some places the doctor's examination together with the laboratory findings, etc., are sent to a reviewer who never sees the patient but makes a written report. The third point is that on the way out each patient is stopped by a socially trained worker and asked if he understands what he has been told. It is surprising how many people do not know what green vegetables are. They are asked if they have any additional questions to ask. When I take my child to the pediatrician I think on the way home of the questions that I wanted to ask and many patients on the way

out, think of the questions they would have liked to have asked the doctor. They are always asked if the advice given is possible; there is no use telling a clerk to drink something hot before going to bed, if she cannot do it in a hall bedroom.

The individual who comes to the clinic should come armed with a questionnaire. After being entered he goes to the nurse who makes the examination and then each individual has three quarters of an hour with the doctor; roughly, five minutes to look over the questionnaire and to ask any additional questions, one half hour for examination and ten minutes for instruction. In a three hour period the doctor is dated up for three patients so he has a certain amount of leeway for patients who have thought of additional questions. The last ten or fifteen minutes are given over to discussing the case. At the time the doctor talks to the patient he writes—"Green vegetables", "glass of water", "go to your doctor about your heart"—and these instructions are taken home.

We were told that it was absurd for us to pretend that we could give a physical examination for \$5.00 and give it at cost, either it was not at cost or it was not thorough. I asked, "What do you consider the examination is for?" The man said, "For diagnosis". I said "Absolutely not". It would be absurd to pretend to give a diagnostic examination in three quarters of an hour; however the examination is sufficiently thorough to pick out points in the body, to be followed further and to refer the person back to the family physician for that further observation. I heard one man say he looked on a health examination as

group diagnosis. I think he is treading on pretty thin ice if he looks at it in that way and is going to keep it within the fee which the patient can afford. Of the first 100 patients that came to us 53 were sent to their family physicians with a report. The reactions of the private doctor to the Health Clinic are varied and it is probably only the unsatisfactory reactions that come to mind. The satisfied doctor does not say anything about it so that we are liable to get sometimes a somewhat morbid impression of the work. An old gentleman who came back for advice is an example of one of the worst type of reaction that we get. He was 63 years old and interested in having his physical assets and liabilities checked up. He was found to have something wrong with his heart. After an examination a report was sent to his family physician. He had more confidence in this physician socially than medically. He was an old family friend and he was not sure that he wanted to go back. However he took his report to him and the doctor said "You have been to the Life Extension Institute". He said—No, that he had been to Cornell. The doctor called his nurse, pointed to the old culprit and said "Here's a man who has been to the Life Extension Institute", and the man withdrew. Three days later he had an acute pain in the abdomen and he called in the same doctor. The doctor gave him a hypodermic at once. When the man asked him what was the matter, he was told that the "Peristalsis of his intestine was disturbed." The man came back for advice.

It may be helpful to summarize some of the criticisms the Clinic has met. In the first place the lay press criticizes

the clinic on the basis of its economic standards—that it is un-American and un-democratic. A second criticism has been in regard to our economic classification. It has been said that it is very unsatisfactory. This classification was drawn up after a great deal of thought and consultation with economists and was based on the then existing cost of living in New York City. It will undoubtedly be modified as experience dictates. Criticism has been brought against the fee. Patients have said that it is absurd to say that we can give our service at cost when in addition to the three quarters of an hour of the doctor's time, the patient receives some time from the social worker, nurse, and time at the admission desk. The doctor's time for the new patient to the medical department costs the Clinic \$1.68 and the patient is paying the clinic \$1.00. The first visit, taking everything into account, costs the clinic something over \$3.00. The idea was that the later visits which were less time consuming and which were made at the same rate would pay the clinic better. This has not proved to be so because of the very small proportion of acute cases, returning regularly for routine treatment. On June 1st next, the fee is going to be raised to \$1.50. This is done with a great deal of regret and with the understanding that a certain amount of criticism will be caused but certainly we are not playing fair with the patient now when the visit costs the patient \$1.50 and costs the clinic \$2.00. Others say the fees are too high. It is pointed out that our X-ray fees are in some instances as high as commercial laboratories. You tell the X-ray men that and his blood pressure just goes out

of sight. He is sensitive about the commercial laboratories. It is true that the average commercial laboratory does not read plates. In the Clinic we furnish a staff who reads the plates. The most damaging thing said is that we are opening the doors to State Medicine. I asked a doctor who has studied the problem of State Medicine seriously what his answer would be to that criticism. He said that as he understood State Medicine it was service at the expense of the community and that therefore they were very much nearer State Medicine across the street in Bellevue than we were in the Cornell Clinics. Another criticism is that we have young doctors. As a result of the original publicity and especially the notice that professors could be seen for \$1.00 a false impression was created. The professors are much interested in the clinic which they visit regularly once a week and the problem cases are saved for them. Each department has a clinic chief who is an older man of experience and who keeps very close supervision of the staff. The last criticism is that the whole thing is wrong and this is sometimes vehement. Anonymous letters are received and of course the more anonymous the more vehement. We are an experiment. There are certainly plenty of things to correct. If we had waited until we knew just how to do everything we would never have started. We have to have some experience on which to base our actions in the future.

Granted that the Cornell Clinic is all wrong and that a year from now it will have gone back to the free clinic that it was originally, at least we will have gathered an enormous amount of information. It seems to

me that it is some solution of this pressing problem of sound medical service for the enormous group of persons with moderate means. That is the greatest safeguard to the profession from State Medicine.

DISCUSSION

Dr. James A. Hayne, South Carolina: I have given twenty-five years of my life to the medical profession; nine years of that time I spent as a country cross-roads doctor, driving or riding a mule or driving a horse. The very class of individuals that the Cornell Clinics reach is the individual who is making a salary that pays for a house and an education for his family but who is not making sufficient to pay the fees in connection with what some people call the vicious circle. I will illustrate what I mean by vicious circle, you will find it in every village in the state. We have a consultant, the patient sees the consultant; then he goes to the dentist, the dentist finds an abscess; he goes to the X-ray man and the X-ray man finds everything he can see in the plate which is most anything, and so he goes the rounds and ends with a deflated pocket-book and no faith in the medical profession. He passes through the hands of an osteopath, a Christian Scientist, a chiropractor. It seems to me it takes the self-respect of a man, when he pays more than he is able to for medical service. The Cornell Clinics give him the best of diagnosis and treatment for a fee that enables him to retain his self-respect. It is an advantage for the patient to keep in touch with just one physician. What usually happens in group medicine is that the patient finally gets down to being No. 23.

Dr. Eugene R. Kelley, Massachusetts: The question Dr. Bigelow brought before us is the thing we have all thought about and have tried to express for some time. Regardless of the mistakes that the Cornell Clinic may have made, regardless of what may be the outcome of this experiment, its greatest value, it seems to me, will be to demonstrate this: that either the medical profession must organize in such a way that a more complete method of treatment will be made available to the public on a

private basis, or else medical care is going to be furnished on a definite state basis. In Europe there is a system of medicine by which the fee is fixed by the government and the patient's contribution is also fixed by the government. Dr. Bigelow's remarks give us food for thought because in some form or other this same experiment is going to be tried out in many places throughout the country. The experiment in Kansas that Dr. Crumrine mentioned is an attempt to solve the same question of furnishing medical service to persons of moderate means. I would suggest that we give Dr. Bigelow personally a vote of thanks for telling us about the Cornell experiment and that the manager of the Clinics be thanked for sending him to us.

Dr. Wadsworth, New York: I would like to ask Dr. Bigelow what are the opportunities for verifying diagnosis. I should judge from the outline he gave us that the opportunities for diagnosis are superior to those offered by the ordinary university or hospital clinic. I would like to have him give a few of the methods that they use for verifying them.

Dr. Matthias Nicoll, Jr., New York: I am not a pessimist in regard to the medical profession. I believe that if the profession is treated fairly we shall get along with them pretty well. As an illustration, we established in New York tuberculosis clinics and for a nominal fee engaged specialists to hold such clinics throughout the state. We started with a bang; people came in by the hundreds and thousands, all of them had to be attended to, which meant that the examinations were superficial. The reports instead of coming promptly were withheld for a week or ten days. These clinics proved to be State Medicine in its worst form. About ten years ago we started on what is called an ethical basis, no one was admitted except upon a card from his physician. It is true that the physician was frequently visited by the state nurse to see if he had any tuberculosis cases or contacts in which he was doubtful of the diagnosis and he was asked to send them to the clinic. The clinics were kept down about one-quarter their former size. Reports were sent to the doctor within a few days. Since that time the medical profession has not objected but has shown its approval by attending a large number of

these clinics. The cases of course are referred back to them. Regarding health examinations we started, as an example to the rest of the state, making examinations of the employees of the New York State Department of Health. They were not compulsory but we offered the opportunity. We have 450 employees. All that we did as follow-up was to give them their histories. If we found some very bad cases, we referred them to their physician. This year when the examinations were made, we took into consideration the complaints of these people that nothing was done for them, that they were simply told to do certain things, and we now see to it that something is done for them if they do not wish to go to their own doctor, or have none. If they had a doctor, he was entitled to the physical examination report, laboratory and X-ray reports. We established milk classes for the underweight. By giving this practical assistance rather than a theoretical examination for statistical purposes, we have made this work worth while.

Dr. Bigelow: I want to thank the Conference for the vote of thanks which I will transmit to Dr. Niles. I want to make it quite clear that I did not want to praise the staff that we have at Cornell by saying that we did a fair quality of work but I do think that we have an excellent group of doctors. The question is this: we think we know, from the statistics gathered by us, that 70 per cent of our patients have been for six months or more under the care of a private physician for the same condition they come to us for and we tell the practitioner that with a good deal of scorn. We say "Isn't this terrible? You have had this patient for six months or more and still he has to come to us for the same condition for which you are supposed to be treating him." We are the breakwater between the patient and the chiropractor or worse, if there is anything worse. The other day one of the staff asked what happened to that same 70 per cent after we had had our chance at them. How many of them had gotten over the breakwater and arrived at the chiropractor where they would probably have gone in the first place? We have recently tried to go over the records and ascertain what kind of work we are doing. Sound diagnosis is easy compared to sound medicine which certainly does not

end with diagnosis. Has the patient returned to the community self-supporting or a burden to the community? We found we were getting a much lower score for the cardiacs, than for the acnes. Then we decided what we would have to get would be an average disability quota for each diagnosis. Insofar as I know we cannot get it.

REPORT OF COMMITTEE ON SANITARY ENGINEERING

BY CHARLES F. DALTON, M. D.,
*Secretary, Vermont State Board of
Health, Chairman.*

In making this report the Committee on Sanitary Engineering decided to discuss some of the problems which confront the Divisions of Sanitary Engineering, and which are more or less common to all of them. One of these is the control of stream pollution.

Streams since time immemorial have been considered the logical place for the disposal of all kinds of waste and refuse, and every community situated on a stream considers it its inalienable right to so use it, regardless of the effect it may have on a neighboring community. This practice has and still is so general and has been so persisted in that in many instances it has become a serious menace to public water supplies.

The importance of the control of stream pollution was very forcibly brought out in a Progress Report of Committee on Industrial Wastes in Relation to Water Supply, of the American Water Works Association Standardization Council, published in May, 1922. This committee conducted studies of the effect of discharge of industrial wastes into streams on water sup-

plies and tabulated the results by states. This shows that more than half of the states have suffered more or less damage to public water supplies on account of pollution by industrial wastes. To quote from this report, "with the growth of industries the injurious effects of industrial wastes upon water supplies and water purification processes are becoming more and more important. Serious troubles from this source have already been experienced in numerous places and water supplies are being menaced to a greater and greater extent by the discharge of industrial wastes into existing or potential sources of water supply. The subject of industrial wastes in relation to water supply is, therefore, very timely, and of vital importance."

It is the opinion of your committee that the above quoted statement is beyond refutation. Anyone at all familiar with the conditions cannot fail to see the grave danger threatening the public water supply of the nation, nor to recognize the necessity of proper control of disposal of wastes, not only from the industries, but of a domestic nature, so that the water supplies may be safeguarded. The above mentioned report shows an average of ten supplies each, in the states from which replies were received, have suffered from this trouble, one state alone reporting 138 supplies affected. It states that "the extent of the pollution may be so great as to interfere with the ordinary water purification processes or to actually render such process incapable of producing a satisfactory water." It is not difficult to foresee what this means, if allowed to continue uncontrolled. Already cities have been put to great expense to seek new

sources of supply, when proper control of waste disposal would have been the wiser from an economic point of view. However, in the absence of proper authority or control this method has been rendered impossible.

Beet sugar refineries of Ohio have seriously affected the water supplies of that state, the State Board of Health reporting that "the vegetable organic matter increased the color and bacterial content of the water, and interfered with the filtration and chlorination processes. The ordinary purification facilities, including storage, aeration, coagulation, filtration and chlorination, were only partially effective in remedying the objectionable effects."

Pennsylvania and West Virginia have reported serious trouble from discharge of mine drainage water into public water supplies. The "Engineering and Contracting" magazine for February 14, 1923, contained an article by Mr. J. W. Ledoux, Consulting Sanitary Engineer, entitled "Water Supply Contamination by Mine Drainage". It is a discussion of the situation in Pennsylvania and brings out the seriousness of conditions from the water supply point of view. In some sections of the state the problem has already reached a stage where careful study is necessary to decide whether the sacrifice of the water supply or of the coal is best from an economic standpoint. It has been estimated by Mr. C. A. Emerson, formerly chief sanitary engineer with the Pennsylvania State Department of Health, that the cost to the State, of this pollution by mine drainage, is more than eight million dollars annually. In some instances it has been necessary to abandon a water supply and seek another source, on account of the acidity pro-

duced by mine wastes. The cost of chemicals for treating the water has been prohibitive, necessitating the procurement of another source of supply.

Another source of trouble, and one which is not dependent on natural, geological deposits to delimit its field, is wastes from gas and coke plants and from wood alcohol plants. Milwaukee has suffered badly from tastes and odors in its water supply produced by wastes of this character. They are responsible for the so-called "creosote" odors and tastes in water, which are intensified by disinfection by chlorine. As it is a generally recognized fact that all surface waters should be disinfected before use as a domestic supply, and as these "creosote" odors are noticeable even in a very great dilution, one part of waste to ten million parts of water, the menace to water supplies from this source is apparent. At Milwaukee it was found that the tastes were produced by one part of waste in 500,000,000 parts of chlorinated water. It is evident that under such circumstances natural dilution, especially in streams, cannot be relied upon to prevent trouble. According to the report of the Committee on Industrial Wastes in Relation to Water Supply, above referred to, no satisfactory method of water purification has been found, to eliminate the tastes and odors due to the phenol wastes. It has been found necessary to begin corrective measures on the waste before discharge into a water supply. At Milwaukee experiments with the activated sludge process of sewage disposal indicate that this will be able to protect the water supply even when the phenol carrying wastes in the sewage are very considerably increased.

Some sections of the country are affected by the salt water and crude oil from operation of oil wells. The discharge of salt water from oil wells causes the majority of trouble from this source. It not only pollutes the surface waters, but in some cases, notably in Oklahoma, underground waters have been affected through abandoned wells which were ineffectively plugged. Oil refinery wastes also caused trouble. It is reported by Mr. F. M. Veatch that the Verdigris River has been so badly polluted by these wastes that at times it is impossible to wash dishes in the city water of several cities without leaving a taste on the dishes.

We have mentioned some of the most glaring examples of stream pollution by industrial wastes. It does not appear to your committee to be necessary to burden you with a detailed reference to result of contamination of water supplies by each individual type of industrial waste. The literature is replete with such illustrations, in fact, the bibliography on the subject would be nearly as long as this report itself. The problem has received recognition by communities, State Health Boards and by the Federal Health Service, and thousands of dollars have been spent in making investigations for the purpose of correcting existing evils of this character, or to find some means by which it can be prevented in other places. Many other types of industrial wastes may be as obnoxious as those mentioned above, for example, chemical manufacturing wastes, corn products wastes, dye wastes, leatherboard and strawboard wastes, wastes from munitions plants, pulp and paper mill wastes, tannery wastes, textile industry wastes, both from woolen and cotton mills and

many others are on record as having seriously affected the quality of existing water supplies, or rendered potential sources unfit for use. The States of Connecticut and New Jersey have made numerous investigations of streams, and practically every stream in those states has been found to be more or less seriously affected by wastes of one sort or another.

The States of Pennsylvania, Ohio, Minnesota, Wisconsin and others have found very similar conditions, and it is the belief of your committee that most of the states would find that many of their water supplies are facing a grave danger from this source if thorough investigations were made. In view of the fact that practically every kind of industrial waste may be considered as a potential source of pollution of water supplies, the importance of early recognition of this problem cannot be overestimated.

It is not our intention to outline methods of correction of existing evils of this character, for two reasons. First because no remedy has been found to correct the water after the pollution has occurred, and second, because each individual case is a problem by itself which can best be corrected after thorough study of conditions. Our object in discussing this subject is rather to bring to the health authorities a realization of the seriousness of the problem, in the hope that it may direct the attention of some of the less afflicted to the dangers ahead, so they may take steps to prevent a wholesale destruction of water supplies in their state. Boards of health are charged with the duty of preventing the preventable diseases, and of securing the people against unnecessary ex-

posure to disease. It is also their duty to prevent conditions which cause disease. It is a well recognized fact that a good water supply is one of the most potent factors in maintaining good health. The work of preservation of the sanitary and esthetic quality of a public water supply is therefore, a logical and proper part of the duties of such health boards. The esthetic consideration is included because if a water, although safe from a sanitary point of view, is objectionable on account of tastes or odors or for some other physical characteristic, it may cause consumers to turn to other sources, which may not be safe, thus creating a strictly public health problem.

It has been learned that in most of the states where serious industrial waste problems have occurred, the state boards of health have some control, but in only five has ample authority been given the health authorities to fully control conditions. Practically all the states report that enforcement of the laws is materially hampered for lack of sufficient appropriations for field and laboratory personnel.

In general there are three lines of procedure for correcting unsatisfactory conditions due to pollution by industrial wastes, namely:

1. Purification of the water.
2. Treatment of the industrial waste before discharge.
3. Preventing the discharge of the wastes into the water supply.

The boards of health should have sufficient authority to compel the employment of one of these, but before ordering any particular community or industry to carry out any measures, a

careful study should be made to determine which is the best remedy, giving due consideration to established industries.

It is believed by your committee that the control of stream pollution for the protection of existing and potential water supplies is one of the most important problems with which the Sanitary Engineering Divisions of the State Boards of Health have to deal, and the health boards of our states should see to it that every effort is made to secure the enactment of laws to place in their hands the necessary authority to enable them to effectively control the situation, and to secure adequate appropriations to provide the necessary field and laboratory workers to carry out the investigations. A change of policy in some states will be necessary, in order to give the public the protection to which it is entitled.

This is one of the many problems confronting the sanitary engineer in the state health departments, but in view of the trend toward destruction of all surface sources of water supply, it is believed to be of sufficient importance to take a prominent place in our report. It is hoped that this presentation of this subject will stimulate discussion which will be of help to those states which are not yet seriously affected, to the end that they may institute preventive measures and thus avoid the difficult and expensive corrective measures to which some of our states are already put.

No attempt has been made to cover the field of Sanitary Engineering in public health work, as it was thought that more could be accomplished by concentrating on one problem, leaving other problems such as control of water

supplies, sewage disposal, milk supply, housing, etc., for subsequent reports.

Respectfully submitted,

CHAS. F. DALTON,

Chairman.

C. N. HARRUB, B. S.

DISCUSSION

Mr. H. A. Whittaker, Minnesota: There is one waste disposal problem that is exceedingly interesting to the Western States, in particular, and that is the disposal of dairy and creamery wastes. If any of the states here have had experience on the subject, I should be very glad if they would give us the benefit of that experience. A problem that is not mentioned very frequently is the disposal of wastes from gravel pits and gravel washing establishments. We have had one case of that kind in Minnesota during the past year, which practically incapacitated one of our filtration plants.

Mr. C. N. Harrub, Tennessee: In preparing this report, this committee has concentrated on this one item. It was our special desire to bring it to the attention of the states that have not yet been up against it because it is a very serious one. I believe all the sanitary engineers connected with state boards of health will agree with me that this is one of the big problems that confront the engineering divisions, this matter of the protection of water supplies. If this protection is not provided, it is going to be very difficult for some of our cities to get water at all. As already mentioned in the report the State of Pennsylvania reported 133 water supplies which were seriously interfered with by the discharge of mine drainage water. That brings in an economic problem. We have to have the coal in the cities in order to exist and in order to mine the coal we must have water. It has gotten to the point where we must decide which is of the greater value—the water supply or the coal supply. In some cases they have decided to abandon the water supply, and in other cases to leave areas unmined in order to provide water. This is the matter I have been bringing continually to the attention of the authorities in the state department of health in Tennessee. We have been bearing down very heavily

on this because some of our streams are badly contaminated with industrial wastes. I think it might have been well to have brought out a little more fully and a little more emphatically in this report the matter of disposal of domestic wastes, they will ruin water supplies sometimes even more completely than industrial wastes. I believe there is no greater field for service on the part of health authorities than to bring before the state legislature the importance of this work, and to put forth every effort to get sufficient appropriations so that it can be carried on.

Mr. Mendelsohn, United States Public Health Service: I am glad to say that the matter that was brought up by Mr. Whittaker in regard to the action by the U. S. government concerning the reports and recommendations of the International Joint Boundary Commission, is now in the state of having the agreement signed by both United States and Canada. The Department of Commerce and the Treasury Department were called upon by the Department of State to agree to the recommendations made by the International Joint Boundary Commission that a certain court be set up on both sides of the boundary to consider pollution affecting the waters on both sides. It is believed that this court will be arranged for after this treaty is signed.

Dr. Eugene R. Kelley, Massachusetts: I would like to ask that the Committee next year, among other inquiries, cover the question of pollution by oil refineries, surface oil, etc., a subject we have been having some difficulty with in our own state for the last couple of years. It would be an advantage if we could get a record of where they are, how many there are and what their relation is to heavily populated communities. No one has collected this data.

Mr. Whittaker, Minnesota: I would like to ask Mr. Mendelsohn if he can tell me when this Commission will probably make a decision in the boundary matter.

Mr. Mendelsohn: In view of the fact that such matters have to go through the hands of the Ambassador of Great Britain, it will take probably another half year or year before the treaty is agreed to and then it will take some time after that before the necessary machinery is set up. It has taken

about eight years to get the matter to the present stage because of the various channels through which the correspondence had to go.

Dr. Conwell, Delaware: I would like to ask if there is an effort being made by the states to prevent the pollution of waters that do not constitute a water supply. In our little state of Delaware are a lot of boys and girls who swim in the streams and mill ponds. This is not the source from which the population get their drinking water but these boys and girls cannot avoid getting a certain amount of that water in their lungs. I would like to ask the Committee if there is any effort being made on the part of the states to prevent contamination of streams that do not furnish a water supply.

Dr. King, Indiana: In connection with this report I would like to inquire as to the authority of the Federal Government and the authority of the Public Health Service, if any, over interstate waters. We are not nearly so interested in the pollution of waters on the boundary between the United States and Canada as we are in the pollution of streams forming the boundary between states. The biggest stream pollution problem we have in the State of Indiana is that of the Calumet District, containing some four or five cities, having a total population of approximately 250,000. This problem involves also the City of Chicago, with a population of two and one-half or three million. We have also the Ohio River, which while forming the boundary between Indiana and Kentucky, belongs properly to the state of Kentucky. The State of Iowa also has the same situation in that the Ohio River belongs to the State of West Virginia.

The State Board of Health in Indiana has all the authority necessary to deal with stream pollution within the state, but it cannot deal with Chicago, it cannot deal with Lake Michigan and it cannot deal with the Ohio River. It seems to me that some Federal agency, preferably of course, the Public Health Service, should have the right to exercise the same authority and control over interstate streams and waters as the Interstate Commerce Commission now exercises over interstate business. It seems to me also, that the Committee on Sanitary

Engineering should go into this phase of the question and make such recommendations as may be thought advisable.

Dr. McCormack, Kentucky: I will say that there has been a very scientific body making investigations of the pollution of interstate streams for many years. Judging by its past it will never report; it has arrived at many scientific conclusions all of which are inconclusive. We think the Ohio River pollution would have been reported on were it not for the fact that the Commission that made this report was utterly worthless in regard to the character of its investigations and in regard to the character of its conclusions. If there is any hope for the clearing of the pollution of the Ohio River we will have to do it ourselves. I have no hope from any of the investigations that have yet been undertaken that there will be anything of value or use that will result. These investigations have been carried on now for about ten years at an expense of \$50,000 a year.

Mr. Mendelsohn, U. S. P. H. S.: I believe the Chairman is referring to the work of the Ohio River Body. As a matter of fact no complete report has been issued though numberless preliminary reports have been. For instance there has just been issued a report of investigations made on the Ohio River and elsewhere; there have also been some on the Ohio River and Illinois River issued and these have been found to be of value to those interested. The reason that it has taken so long to publish the complete report is that the work is so new that it had to be gone into very carefully and a large amount of data collected. While this work was being done the war broke out and the organization was disrupted for three or four years. But it is expected now that there will soon be a complete report. One report considering a section of the work is already in press.

Assistant Surgeon General Draper: Perhaps I may say for those interested in the subject that the Surgeon General has called a conference of all those interested in stream pollution for May 18. At that time several members of the Service who have been engaged in the study will be present and the matter can be very thoroughly gone into. A letter was written to all state health de-

partments asking them to say what interest they had in it. If I recall correctly about 13 answered that they were interested.

Dr. G. M. Anderson, Wyoming: We have several kinds of stream pollution, mines, sewage and now oil refinement. It looks as though we were going to get some reaction through our legislature on the oil pollution since the sheep men have begun to complain, the oil getting on the surface of the water makes it unsafe for the sheep. No attention has been paid to the health department in its pleas for the protection of the people but they are interested now in the protection of the sheep.

Dr. L. L. Lumsden, U. S. P. H. S.: In regard to this study of the Ohio River, the Federal government has no power to control stream pollution, it may study and recommend but it cannot control. I do not know why there is such anxiety about the publication of the report. The work has been going on continuously. After the findings point to definite conclusions, the writing of the report should not take long. It is like devoting three-quarters of an hour or more to the diagnosis and one minute to writing the prescription. The Federal government cannot exercise control over sewage pollution of streams without Congressional authorization.

Dr. Charles F. Dalton, Vermont: This being a new committee, the first question that was decided was the particular portion of the whole field of sanitary engineering that should be covered in the report. It was obviously impossible for the Committee to cover the entire field. After considering different angles and different subjects we decided to concentrate upon this one particular line with the idea that if the Committee was continued we could later on take up other lines. Mr. Harrub suggested stream pollution. In regard to the problem of bathing beaches and the waters that are used for domestic purposes I do not know whether any of the committee are in a position to answer the questions with any degree of accuracy. In my own state we have a very large number of camping sites where boys and girls come for vacations from all over the country. We found by survey children from 37 different states camping on these sites. We found several places where the children were bathing in polluted streams.

Our engineers after surveying the whole situation, started purifying the sewage by chlorine. Now we have a large part of our bathing beaches improved. In regard to water used by cattle, this has been a very important question with us as we are largely an agricultural and dairying state. We have not yet arrived at a satisfactory solution of that problem although we have succeeded in purifying the sewage before it is emptied into the streams in some cases. The committee will take this subject under consideration as well as that introduced by Dr. Kelley and that of the effect of stream pollution on fish.

WHAT CAN YOUR ASSOCIATES IN THE NATIONAL HEALTH COUN- CIL DO TO AID STATE HEALTH DEPARTMENTS?

Prepared by the National Health Council Committee on Programs and Budgets, for presentation before the annual conference of State and Provincial Health Authorities, by Dr. S. J. Crumbine, the Representative of the Conference on the Council.

It was thought that the membership of the council and the units making up that membership were not entirely as familiar as they should be with the aims and purposes of the Council, thus this committee on Programs and Budgets which is represented today by Dr. Nicoll, has written this brief report.

A. *Introduction.*

By the National unofficial health agencies associated in the National Health Council, two main obligations are universally recognized:

1. The support of official Health Department work and of other governmental agencies interested in various types of preventive medicine, the en-

encouragement of their development, and the handing over of voluntary activities to official groups after demonstration and experiment, should such activities have been initiated under private auspices.

2. The education of the public to the support of official health activities, the advocacy of co-operation with the public health officials—in voting funds, in observing sanitary laws and in practicing personal hygiene.

This report will deal primarily with those organizations having an extensive program, organized field service, and definite contacts with local or state groups. An effort will be made to present the types of field and central office services that may be placed at the command of the state health officials. Of course, it should be understood that the total number of individuals available for service is limited. Demands are great, and requests for service have always to be considered in relation to each other.

B. *General Relations of Voluntary Agencies to Public Health Officials; General Services All May Perform.*

A primary purpose of non-official agencies is the encouragement of the organization or extension of official health activities in one or more ways:

1. Experiment, demonstration and research in unestablished fields.

2. The promotion of legislation and appropriations.

3. The development of standards—educational, statistical, medical, nursing, etc.

4. The encouragement of adequate institutional provisions.

5. The recruiting and training of

personnel and the continued education of workers.

6. The development of state and local private organizations to support and co-operate with official activities.

7. The education of the public along health lines through journals, literature, films, exhibits, lectures, etc.

8. Information, consultation and advisory service on official procedure, in co-operation with the Public Health Service and the State Health Departments (especially as projected by the A. P. H. A.)

C. *Special Activities of Particular Agencies Considered in the Light of the Usual Divisions of State Health Department Organization.*

In this and the following section there are presented summaries of the more important services of certain of the agencies in the National Health Council. The more specialized organizations are carrying on particular services referred to in the present section. In the following section reference is made to one or two organizations whose services are for the most part general in character. It must be understood that certain organizations have functions which fall in each group.

1. *Maternity, Infancy and Child Health*

Coinciding to a large degree to the work ordinarily carried out in this division of State Health Departments are the services offered by the *American Child Health Association*—the organization recently formed by the amalgamation of the American Child Hygiene Association and the Child Health Organization of America.

Particular mention should be made of:

- (a) Health supervision and education for (1) parents, infants, young children; (2) school-age groups.
- (b) Development of methods and procedures for health education and supervision.
- (c) Stimulation of training of professional workers; scholarships.
- (d) Preparation of scientific and popular literature relating to child and maternal health.
- (e) Publication of Magazine, "Mother and Child".
- (f) A service of information, consultation and assistance to state and local groups.
- (g) Bureau of research and statistics in child health problems.

II. Public Health Nursing.

While many of the agencies in the Council are directly concerned with this field, such as the American Child Health Association, the National Tuberculosis Association and the American Red Cross, yet particular mention should be made here of the services of the *National Organization for Public Health Nursing*.

- a. Through the Vocational Department, fitting "the right nurse to the right work," and developing uniformity in public health nursing.
- b. Through the National Health Library, offering services in the preparation of bibliographies, the distribution of loan package libraries, advice on health literature, etc.
- c. Through the field service, assisting in the organization of state and local nursing groups.
- d. Through the Educational Depart-

- ment, offering services in studying problems of the education of nurses for public health nursing.
- e. Through the Eligibility Department, the establishment and maintenance of standards of nursing education.
- f. Through the Membership and Publicity Department, supplying material for nurses' recruiting campaigns, publicity campaigns, etc.
- g. Publishes a monthly magazine, "The Public Health Nurse".

III. Tuberculosis.

Special mention should be made here of the work of the *National Tuberculosis Association*:

- a. The medical service offering consultation on surveys of tuberculosis institutions, advice on occupational therapy, sanatorium and home treatment, industrial rehabilitation, etc.
- b. A crusade service, promoting the modern health crusade in the schools—a service which also has a bearing upon the interests of the Division of Maternity, Infancy and Child Health.
- c. A field service, giving special attention to organization problems, programs and budgets of state and local tuberculosis associations, interrelations between voluntary and official groups, etc.
- d. Publicity and publications service, making available newspaper and special articles, motion pictures and other educational material.
- e. Statistical service, offering assistance in health surveys, consultation on morbidity and mortality statistics, etc.

- f. Library service on tuberculosis and general health through the National Health Library.
- g. Publishes "The Review of Tuberculosis" and "The Journal of Outdoor Life."
- h. The training of personnel through the Tuberculosis Institute.

IV. *Veneral Diseases.*

Special mention should be made here of the service offered by the *American Social Hygiene Association*.

- a. The general promotion of public opinion in support of the venereal disease programs of state and local health departments.
- b. The making and distribution of films desired by health authorities placing the program before physicians, social workers, officers of courts and police departments, and other important groups.
- c. Similarly the making and distribution of exhibits, pamphlets, and other publicity.
- d. The provision of full or part-time personnel when voluntary aid is desired for surveys of clinics, lectures, conferences, vice investigations, etc.
- e. In addition, the Association carries on its general activities, which are not usually considered as within the public health field, but which indirectly have a bearing upon reduction of the total number of exposures to the venereal diseases.

1. The publication of the monthly *Journal of Social Hygiene* devoted to articles and discussions on social hygiene research and activities.

2. The promotion of education in social hygiene with particular reference

to accurate, wholesome instruction for youth.

3. The promotion of protective measures.

4. The promotion of legal measures.

5. Other activities in the general field of social hygiene.

- f. General sex education, and home and child hygiene promotion—an activity also bearing on the Division of Child Hygiene.

- g. Library service through the National Health Library.

V. *Division of Mental Hygiene.*

Obviously there should be mentioned here the services of the *National Committee for Mental Hygiene*:

- a. A statistical research and advisory service on mental hygiene and insanity problems.
- b. Public education through lectures, literature, exhibits, monthly and quarterly bulletins, etc.
- c. Institutional and other surveys and promotion of adequate facilities.
- d. Delinquency and other child health and welfare contacts.
- e. Information and expert advice on general mental hygiene problems.
- f. Library service through the National Health Library.

VI. *A Division of Public Health Education.*

Many of the agencies devote a major portion of their resources to health education, including the American Child Health Association, the American Social Hygiene Association, the National Committee for Mental Hygiene, the National Tuberculosis Association, the American Society for the Control of Cancer, the National Organization for Public Health Nursing, etc.

In addition, one agency—the American Red Cross—considers that public health education constitutes one of the first factors in its future health program, through the health study class, lectures, exhibits, classes in first aid, life saving, home hygiene, nutrition, etc. Through the Junior Red Cross, the American Red Cross also offers facilities of interest to child health divisions; and, through its public health nursing service, it is in close touch with the corresponding division of State Health Departments.

VII. *Division of Vital Statistics.*

Most of the agencies have some facilities for service in this field, and could be called upon more extensively than is the case at present by state health departments.

The following agencies have practically full-time statistical personnel:

1. The National Tuberculosis Association.

2. The National Committee for Mental Hygiene.

In addition two other agencies are sharing extensively in the statistical service offered by the National Health Council. These are:

1. The American Social Hygiene Association.

2. The National Organization for Public Health Nursing (about to institute full-time service).

Further, the annual statistical summary of the American Child Health Association constitutes an important service to health officers.

D. *Special Organizations Touching Distinct Fields of State Health Department Interest, But Not Organized Primarily Along Recognized and Established Divisional Lines.*

1. *The American Society for the Control of Cancer.* The particular services of this organization include:

- a. Publications of three types: pamphlets for the profession, for nurses and for the general public.
- b. Exhibits—a number of sets being in constant circulation.
- c. Films—the Society possesses one popular dramatized cancer film in two reels.
- d. The organization of cancer committees and cancer weeks in co-operation with state and local health authorities.
- e. The promotion of medical standards of diagnosis and treatment.

II. *The American Public Health Association.*

Last, but by no means least, this organization composed primarily of official health workers, is in a position to offer valuable and extensive service to public health officials, state and local, along the following lines:

- a. A clearing house, through its sections and annual meetings, for questions of general administrative interests, organization procedure, etc.
- b. Through its committees, standards are set as to laboratory, statistical, sanitary engineering, and other procedures.
- c. Through the Committee on Municipal Health Department Practice, in co-operation with the Public Health Service, information about official health organization in general is kept current, and a consulting advisory service offered at the present time to municipalities, and perhaps subsequently to states.
- d. Through the Journal—general in-

formation, employment service, etc.

E. Personnel Specifically Available on a Part or Full Time Basis for Concrete Services to State Health Departments and Other Agencies.

1. The American Child Health Association.

For the services previously outlined, this Association has available a relatively extensive personnel which may be stated in part as follows, and all of which are presumably available part-time at least to advise with reference to child health problems:

Mr. Courtenay Dinwiddie, General Executive.

Miss Ella Phillips Crandall, Assistant General Executive.

Dr. Richard A. Bolt, Director of Medical Service.

Miss Sally Lucas Jean, Director of Health Education Division.

Dr. George T. Palmer, Director of Research.

Miss Ellen C. Babbitt, Research Editor.

2. The American Public Health Association.

Plans for the immediate future of this Association call for the establishment of a field service, to be conducted in co-operation with the Public Health Service, to follow up the findings of the Committee on Municipal Health Department Practice, and to be available at the start for municipal health activities. It is not inconceivable that this service might ultimately become available for state health interests as well.

3. The American Red Cross.

This organization anticipates the addition to its headquarters staff before

long of a health director to work under the specifications laid down in the recent report of the Advisory Committee on the health program of the Red Cross.

At the present time there are available and at work fifty-one supervising public health nurses, operating with definite understandings with State Health Departments. In addition there is a large staff available among Division and Chapter personnel to advise with reference to classes in home hygiene, nutrition, first aid, life saving, Junior Red Cross, etc.

4. American Society for the Control of Cancer.

This organization has available one full-time field director, Dr. J. E. Rush, whose services may be secured without cost, to give addresses, to attend conferences, to assist in the organization of cancer committees, to stimulate interest in the establishment of diagnostic and advisory cancer clinics, etc.

5. The American Social Hygiene Association.

This organization has a staff of full or part-time personnel available to assist state and local organizations along the following lines:

- a. Surveys of clinics and other treatment facilities.
- b. Lectures to lay or technical groups.
- c. Conferences with legislators or other officials.
- d. Investigations of vice conditions.
- e. Study and preparation of special material for promoting co-operation of racial groups, protective facilities, social service follow-up, state laws and health regulations and measures dealing with delinquency cases.

f. Stimulation of selected volunteer agencies when desired, to supplement official efforts.

6. *The National Committee for Mental Hygiene.*

In addition to the Medical Director, Dr. Frankwood E. Williams, and the Secretary, Mr. Clifford W. Beers, mention should be made of the following:

Dr. V. V. Anderson, Director, Division of Prevention of Delinquency.

Dr. Thomas H. Haines, Director, Department of Mental Deficiency.

Dr. Samuel W. Hamilton, Director, Division on Hospital Service.

Miss Edith M. Furbush, Director, Division on Information and Statistics.

7. *National Organization for Public Health Nursing.*

Associated with Miss Anne A. Stevens, the General Director of this organization, the following staff are available for field work:

Miss Frances V. Brink, Field Secretary.

Miss Theresa Kraker, Assistant Director, (Part-time).

Miss Gertrude Hodgman, Educational Secretary for field work in connection with the education of nurses for public health nursing.

8. *The National Tuberculosis Association.*

Under the direction of Dr. Linsly R. Williams and his associate, Mr. Frederick D. Hopkins, the following are available for specific field services:

Dr. H. A. Pattison, on medical, institutional, industrial, occupational therapy, sanatorium and home treatment problems.

Mr. T. B. Kidner, on institutional sites, plans for tuberculosis insti-

tutions, occupational therapy, etc.
Dr. Edgar T. Shields, on medical field service.

Mr. Charles M. DeForest and associates, on child health education and the Modern Health Crusade.

Mr. A. J. Strawson, on general field organization, association relationships, etc.

Mr. P. P. Jacobs on publicity and educational problems, the training of special workers, etc.

Miss Jessamine S. Whitney, on health service, statistics, etc.

F. *The National Health Council Itself.*

In addition to the foregoing services a number of joint activities are offered by the member agencies through the Council organization itself, the more important of which may be mentioned as follows:

1. The Monthly Digest of current information of activities of Members.

2. The Federal Legislative Statements.

3. The State Legislative Statements in co-operation with the Public Health Service.

4. Conference Calendar in co-operation with the American Public Health Association.

5. Washington contacts and informal representation for the state health officers and others.

6. Informal temporary New York headquarters for traveling health officers.

7. The publication of reports summarizing the organization and service of national health agencies.

8. The promotion of co-ordination of voluntary organizations in the

states, in cooperation with the State Health Departments.

I am sure we will find them of a rapidly increasing advantage to all of us.

DISCUSSION

The President: The Chair would like to say that the privilege which has been extended to him to participate in the proceedings of the National Health Council as an alternate from this body from time to time, has been one of the pleasantest experiences which he has ever had. This organization is really a very definite organization. Largely through our influence, it was so organized that it would not have any functions that would really be pointed, still it has taken on very definite functions and is a clearing house for the different agencies. It is avoiding duplication; it has brought the agencies in such relationship that they are comparing their actual results; it has resulted in their branching out from their central offices far more and doing more actual work such as is detailed in this report than they were able to do before. They are each, in turn, showing the importance of local work and I do not think that any agency that has been created will eventually be of more practical advantage in the promotion of public health work than the National Health Council. The real zeal of the members who attended, the officials and the employees, has been an inspiration in my own work.

Dr. Nicoll, New York: My idea was that these officials do not know what they can count on from that organization. The different resources of the Council were to be put on paper and brought to the attention of the health officials. I want to call your attention to the fact, however, that we have

really come a long way in what health officials advocate, the subordination of unofficial agencies to the official. That we have been advocating for a great many years and I think you will remember the wording of the report that that has to be recognized as an absolute necessity in any advance of public health.

REPORT OF COMMITTEE ON STANDARD RAILWAY SANITARY CODE.

Dr. Crambline, Kansas: May I at this time present a report from a committee that was discontinued last year? At that time a resolution was passed that the question of sanitary regulation on railroads should not be undertaken for another five year period. However the report of the committee made last year should be corrected at this time. The report last year indicated there were eighteen states that had adopted the regulations, there are now thirty. Dr. Crowder has prepared a chart that brings information up to date and I ask leave to submit this to be included in the minutes of the meeting.

These states are listed in the order of their adoptions as follows:

Florida	June, 1920
Mississippi	June, 1920
Alabama	July, 1920
Wisconsin	July, 1920
Minnesota	July, 1920
Maine	August, 1920
Michigan	August, 1920
Tennessee	October, 1920
North Dakota	October, 1920
Kansas	November, 1920
Kentucky	November, 1920
Maryland	1920
Louisiana	January, 1921
West Virginia	June, 1921
Wyoming	July, 1921
Virginia	September, 1921
Arkansas	November, 1921
Georgia	January, 1922
Washington	January, 1922

RAILWAY SANITARY REGULATIONS IN THE UNITED STATES

STATE		VT	NH	ME	CT	RI	MA	NH	VT	NY	PA	DE	MD	VA	NC	SC	GA	FL	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA	TX	OK	NE	KS	MO	IL	IN	OH	MI	WI	IA	ND	SD	NEB	WY	MT	WY	UT	CO	NM	AZ	CA	OR	WA	AK	HI	GU	PR	VI	FM	AS	MP	SA	MC	MS	LA
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LEGEND: ○ Regulation in stevedance until July 1924.
● Admitted under restrictions.

I. Each is an

New Hampshire	February, 1922
Illinois	March, 1922
Vermont	July, 1922
Nebraska	September, 1922
South Carolina	October, 1922
Indiana	January, 1923
Ohio	March, 1923
Missouri	March, 1923
Montana	April, 1923
Oklahoma	May, 1923

As revealed in correspondence, some other states are contemplating action at an early date.

President McCormack: Without objections, this will be accepted. I suggest that Dr. Crowder continue to come to the meetings.

Conference adjourned until following day.

TUESDAY, MAY 15

MERCANTILE HYGIENE AND ASSET TO PUBLIC HEALTH

BY DR. A. B. EMMONS, 2d., DIRECTOR,
Harvard Mercantile Health Work,
3 Joy Street, Boston, Massachusetts.

PREFACE NOTE

The Harvard Mercantile Health Work was organized three and one-half years ago by a group of merchants who believed that it was good business to prevent absence and lost time from illness and injury. They furnished the budget and the Harvard Medical School agreed to supervise the study.

It became my duty to search out the causes of illness and injury and to suggest means and methods of prevention.

The first procedure was to study the twenty-five subscribing stores from a sanitary and health point of view. A detailed report to each store was made with practical recommendations suited

to its individual needs. Many stores have followed these recommendations and are developing satisfactorily their health work.

Preventive Medicine is thus being successfully applied to the mercantile field where the large waste is from illness rather than from accident. You are familiar with accident prevention in industry and its saving in operative costs. It is quite logical to expect similar saving in operative cost from "Medical accidents", as much sickness may be considered, provided means and methods can be devised to adapt medical procedure to mercantile life.

Sanitation and Hygiene.

A few of the common sanitary defects found in these leading stores may be of interest.

Little thought has been spent on proper *seating*. A search disclosed that an excellent chair has been designed by a committee for the Mass. Institute of Technology. This has been described under the name of a "Work Chair." The chief advantage is that it supports the back even when leaning forward at work.

Another postural defect was common. Many women standing at their work were found to wear shoes which prevented the individual from standing without needless strain on feet and spine.

A study of the feet and shoes of 97 women with no known foot trouble disclosed that 43 wore too short shoes, 19 pairs of heels were injuriously high, and 40 others were sufficiently high to upset body balance. 59 pairs were so fitted as to cause foot distortion. These shoes were replaced by carefully fitted shoes of correct, good looking design,

"a store shoe". After several months 59 of these women reported improvement in the condition of their feet. 74 wished to continue wearing their "store shoes".

Our general conclusions from this study were that more than half the women standing at work have foot trouble or strain. These women are wearing shoes which are badly fitted, especially as to length, often with heels excessively high, and of materials too light in weight, as well as poorly shaped and aligned.

It is possible to relieve foot strain and reduce foot trouble by examining the feet, carefully fitting a correct "store shoe" and following up the difficult cases.

The president of a large rubber manufactory told me that they employed over one hundred girls as inspectors. The number of defects in their product was found to be large. The *eyesight* of these girls was tested. About a quarter of them were found to have defective vision of sufficient severity to prevent their seeing the defects. Correction of the refractive errors resulted in an improved product, which many times overpaid the expense of examination and glasses.

Only two of the twenty-five stores were found to make a routine examination of the eyes. Studies of similar industrial groups show that about two people in every four have defective eyesight needing correction and usually one of these already wears corrective glasses. This is especially important in the office force where reading is essential. Eyestrain and errors are the penalties.

There are three factors in the problem of seeing—eyesight, light and copy.

Studies on modern office lighting show that the essentials are elimination of glare and shadows with sufficient illumination. Daylight properly used is best. Totally indirect lighting comes next in answering these requirements. Semi-indirect lighting gives reasonably good conditions.

The foot candle meter measures intensity of light at any point. It is useful in determining the exact amount of light which your lighting system is giving. It aids in installing good lighting, but fully as important it may be used to check the maintenance at reasonable standards of the lighting system. The Illuminating Eng. Soc. publishes an American Code of Lighting giving reasonable standards of foot-candle readings for all used.

Copy must be legible. Old faded cards and too thin paper with faint ink fails to give needed contrast.

Ventilation is still in its infancy. The report of the New York State Commission of Ventilation, just published, concludes that the commonest fault is over heating. The ideal temperature is 68°, over heating to 75° puts a burden on the health regulating system of the body. Besides a temperature standard moderate humidity (r. h. not over 50%) is desirable. A third factor, air movement without chilling drafts, is conducive to health and comfort.

Window ventilation for a room not over crowded is often satisfactory. The report finally concludes that avoidance of over heating is the primary essential. The most important article of ventilating equipment is therefore the thermometer. A constant vigilance in regard to over heating is the price of health and comfort.

Passing now from the field of sani-

tation and plant or job hygiene in which all agree the responsibility lies primarily with the management we turn to the field of illness, injury and personal fitness. The responsibility for lost time is here shared perhaps equally by management and the individual worker. The wastes from these causes are turnover and lost time from ill health, and lack of vigor.

The gross turnover in the best stores today is not often over 60%. One large store recently told me that they employed 6,000 people in one year to keep the 3,000 positions filled, a gross turnover of 200%. Many of these changes are not due to ill health, but a large proportion are. Certainly good health and good working conditions tend to reduce these changes. It is estimated that each new person placed and trained costs from \$50 to \$200. This is a total loss charged to operating expenses.

The chief field for preventive medicine in stores lies in the daily attendance at the store health department. Chart 1—(1 yr. 7 stores). The causes of these visits are shown in Chart 2.

CLASSIFICATION OF DISEASES AND INJURIES

STORE VII POPULATION - 4000. NOV. 1922
TOTAL NEW CASES - 1318.

DISEASES - 963



INJURIES - 355



(Chart 2.)

COMPARATIVE USE OF SEVEN STORE HEALTH DEPTS - 1922

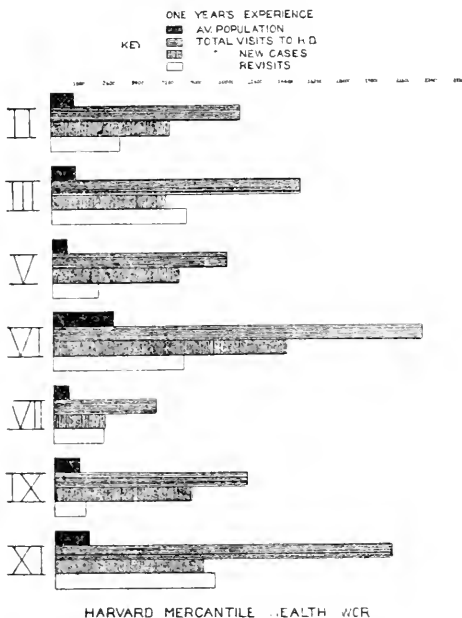


Chart 1.

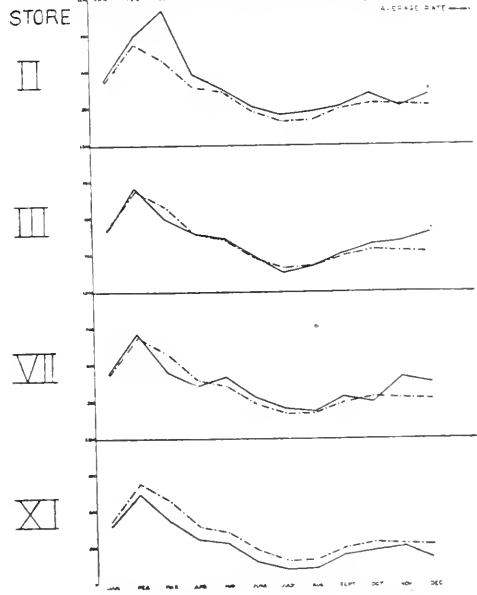
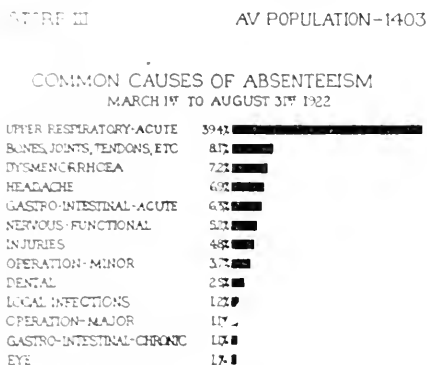
ABSENTEEISM DUE TO ILLNESS AND INJURY - 1922.
COMPARATIVE MONTHLY RATE PER 1000 POPULATION

Chart 3.

Compare these absentees from illness, Chart 3, which shows the seasonal variations. The causes of absence are shown in chart 4. These are the more severe causes and of longer duration.



HARVARD MERCANTILE HEALTH WORK

Chart 4.

Let us pause a moment to note the change in point of view in the importance of disease conditions. In the past tuberculosis was the outstanding disease of the respiratory tract. It is being reduced by careful physical examinations and follow up work. But today, as these charts show, infections of the upper respiratory tract are far more costly to industry, the individuals and the community. We need more satisfactory methods of diagnosis, treatment and prevention of these nose and throat conditions.

The doctor, the dentist, the nurse and the physical director are each able to do their part in dealing with these people and leading them to healthier modes of life.

Last month's report from a well organized health department of a large store showed that in 24 working days 2,413 visits were made to the health department. The two doctors saw 916 (38%) the four nurses saw 1,371 (56.8%) and the physical director saw 126 (5.2%).

The financing of this work is of vital importance. The cost in one medium sized store (900) with one hour of the doctor's time and a full time nurse with fair equipment, was found to be less than \$4 per individual per year. Other stores showed figures which indicate that for \$5 per person per year a fairly complete service can be organized.

The sound policy of finance, our experience shows, is to organize a mutual benefit association. Membership must be a condition of employment. Each member pays dues from $\frac{1}{2}$ to 1% of their wage. The business contributes an equal amount. With this fund the health department is financed and compensation for prolonged illness is paid. This co-operative scheme results in an elected group running their own health department adapted to their special needs, financed co-operatively, and in the interests of the business, the success of which means their own success.

The small store, office, or bank, can hardly alone finance a complete service. A group of small stores with a combined population of 1,000 or more people could well do this. The economical and practical way to run this is to have a nurse and doctor visiting each member—store, office, or bank—at regular times and giving just the amount of service needed.

The cost of such service might be slightly higher but if the right doctor and nurses are used you should get the desired results—better health—better team work—better morale and—better business.

Public Health is successful only where a strong motive is active. Fear of communicable disease is the strength behind the public health official.

In mercantile medicine the continu-

ance of the job is the chief motive for following health advice. The mercantile health officer must be a plausible health teacher.

DISCUSSION

President McCormack: This is a very remarkable address. Like all of these movements, we are watching the difference between state medicine and, what we might better term as we move forward and what will probably, if anything will, prevent state medicine, organized medicine. If we can substitute for state medicine organized medicine, and make its benefits reach all people, we will have accomplished our purpose and I think Dr. Emmons has made a very complete contribution to this thought.

Colonel Deane C. Howard, U. S. Army, Former Chief Health Officer, the Panama Canal: This subject is one of great interest to me, and I have enjoyed the paper just presented. The work outlined has been carried on for many years as a settled policy in health administration of the Panama Canal, with which I was associated as Chief Health Officer for two years, prior to our entry into the World War. Your President succeeded me in that capacity, as he has stated, and thus has first hand knowledge of the work which I shall outline.

The Panama Canal may be considered as a large industrial plant operated by the United States government. The Health Department starts with a physical examination of every employee. Records are kept, and re-examinations are made annually. All defects are noted on the record. Those requiring remedial action are cared for in our own hospitals or dispensaries, by our own operators or physicians. Employees are cared for in the Panama Canal hospitals without expense to them. No fees are paid for any medical service to Canal employees. Well equipped hospitals and skillful physicians and surgeons are provided out of government appropriations. Living and housing conditions of employees, and general sanitation of the entire Zone are supervised by Health Department officials as a part of the employer's responsibility for the welfare and efficiency of employees. School children in the Zone are given thorough physical examination annually, and careful records

kept. Remedial defects are attended to in the same manner as with employees. Salaried dentists in the employ of the Canal attend to defects of the teeth, and instruct in mouth hygiene. During the years 1916-17 the average number of employees was about 32,000. Employees appreciate the benefit of this health service to them individually, and we always have their good will. We were able to go much further along these lines, due to the authority of the government back of us, than could be expected in an establishment under private control. The scheme outlined is State Medicine in a high degree. It promotes efficiency and general welfare to an extent not possible by any other means. In the civil state to establish such control over an entire population by governmental authority would be impracticable and undesirable. We have not yet reached Utopia in our development. The scheme which is thoroughly workable and satisfactory in this strip of Federal Territory known as the Canal Zone would not be desirable, even if possible, in large civil communities. If similar measures to those outlined can be taken by individual mercantile houses and industrial establishments many of the good results of State Medicine will be attained without its many disadvantages in large civil communities.

I should like to ask the speaker how they follow up cases of defects discovered at physical examination, such as tonsils, defective teeth, appendicitis requiring operation, etc. Have you competent surgeons and dentists of your own, or do you make arrangements with local operators other than your own physicians and surgeons? How is the matter financed? Are employees required to pay a fee for operations to correct defects discovered at examination which are found to be detrimental to physical efficiency? There is another question which occurs to me in this connection. Can you compel an employee to submit to operation for removal of a defect found to be impairing his efficiency on penalty of losing his position? Or is it optional with such employee to accept advice as to operation, or to continue in his employment without operation if he elects to do so? This question is easily answered when you have sufficient authority back of you, but whether you can compel such action in a private establishment, in the present development

of industrial medicine is another thing. I should like to be enlightened on this point. This is all. I appreciate the courtesy of the Society in permitting me to hear this most interesting paper.

Dr. Eugene R. Kellen, Massachusetts: Being familiar with Dr. Emmons' work, there are three points I would like to mention which Dr. Emmons thought he would not bring out. I want to call the attention of the Conference to the first thing that strikes me as remarkable about this piece of work. At Harvard, the Medical School is going on in a quiet way about a great piece of work. Dr. Emmons is not so much in the position of director of this work as he is consulting and sanitary expert of a group of organizations. The other two things I wish he would bring out are first: the difficulty involved in the attitude of the employees, that is, the attitude of those who are suspicious of the proposed health organization, second, the attitude of many of the executives. I think he should throw some light on the difficulties he has met on both sides of the question, in trying to make the employees realize that it is for their benefit and the employers that this activity should be jointly financed from both the employed and employers' side.

The President: I have recently been reading some of the reports on trade conditions in England. It is of great interest that the various departments in England when they find one of their manufacturers making something of particular value, immediately convey that article to the king or Prince of Wales and a stamp of approval is placed thereon. The methods or character of his manufactured product is thus stamped by government approval. It helps with us Americans who go over there, we rather like things that come from the shops to which the King has given his approval. In Kentucky the State Board of Health has no hesitation in telling people where they can buy things we have approved, things manufactured and for sale in Kentucky, although we do not get any income from it. We believe in approving things in our State that promote health and happiness. I think it is one of the by-products of our health institutional movement.

REPORT OF COMMITTEE ON VENEREAL DISEASES

BY ASSISTANT SURGEON GENERAL
MARK J. WHITE,

*Chief, Division of Venereal Diseases
U. S. Public Health Service*

This year your conference officers asked me to prepare the report from the records of the Division of Venereal Diseases. All of the States wish an index of what we are doing in venereal disease control work and unless we get the data from all the States it is not practicable to supply the information. I really wish that those who do not report would come out and say why they do not, for unless we can obtain complete data from all the States it will not be practicable to make a full report to your Conference. It has been necessary to write a good many letters asking for reports.

The activities for the past three years are included in this report which is very long. If it is agreeable, I will merely hand it in for publication and will not read any of it. I did not have a chance to send it to your Secretary, Doctor Olin, for approval but it gives all of the recorded data, I believe, and where it is incomplete it is because necessary reports have not been received from some of the states.

In a recent conversation with a prominent woman physician reference was made to chemical prophylaxis. She was decidedly opposed to such a measure and felt that the teaching of continence was the correct method of preventing venereal diseases. Upon being asked whether she thought it would take a hundred years to make such a program effective, she said, "Yes, or

even two hundred years." I asked her how in the meantime we would protect insane asylums, hospitals for the criminal insane, and other institutions looking after public charges resulting from venereal infection and she replied, "Well, we will just have to hope for the best." There are a great many people who sincerely believe that the advocacy of chemical prophylaxis would result in increased immorality and venereal infection and there are a great many people who are convinced that chemical prophylaxis would not increase immorality and that it would very materially lessen the incidence of venereal diseases. Among the latter group are physicians and health officers and if their view is correct some definite effort should be made to convince the opponents as is being done in certain foreign countries.

Respecting appropriations for venereal disease work. We are getting less appropriations and the work is going down and out unless we do something to revive it. Notwithstanding the educational activities, we are getting considerably less money than in previous years. This year, for instance, our appropriation is about \$175,000 less than it was last year and to me the indications are that the appropriations, both Federal and State, will fall steadily unless our efforts meet with greater success.

I desire to state that the Public Health Service will not render aid within a State in connection with the venereal disease work unless it is requested by the State health department. Even colleges requesting to be shown the movie picture "Science of Life" are uniformly advised that they must take the matter up with their State health

department. This picture is one of the facilities maintained by the Division for teaching sex education in connection with the venereal disease control program and unless the State department of health adopts sex education as a part of its venereal disease program it would not be practicable for the Division to render any assistance in the matter within a State. Many requests are received from various civic organizations or associations for the detail of speakers or lecturers and they also are uniformly advised that the matter will have to be taken up by them with their State department of health.

TREND OF VENEREAL DISEASE INCIDENCE

Is venereal infection increasing or decreasing in the general population? Conflicting answers to this query were made by practicing dermatologists and genito-urinary specialists in a canvass of medical opinion recently made by the United State Public Health Service.*

This paper reviews the results of this inquiry and also summarizes data from clinics reporting to the Public Health Service bearing on the trend of these diseases.

I.

Of 194 dermatologists and urologists replying to the question, 95 (49%) thought venereal disease infection was decreasing and 42 (22%) thought it was increasing in their communities.** The remaining 57 (29%) thought there had been no change in trend recently.

Another question related to increase or decrease in 1922 as compared with

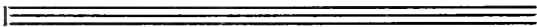
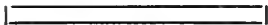

1921 in the practice of the dermatologists and urologists replying to the inquiry***. Acute and chronic syphilis and gonococcus infection were distinguished. It is evident that a specialist might report that there was an increasing number of cases in his practice without there being an increase in the community as a whole.

Such a condition is described in the personal experience of several physicians replying to the inquiry as follows:

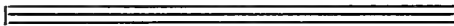


I am seeing an increasing number of cases of acute and chronic gonorrhea, syphilis, and other venereal diseases in the office, a Brooklyn correspondent writes, but this, I believe is due to a natural increase in practice, and not to the occurrence of a greater number in the general population. Irrespective of the amount of venereal disease afflicting a community, it seems to me that up to the fifteenth or twentieth year of practice one specializing in urology is apt to see a larger number of

Percentage of dermatologists and urologists estimating that acute and chronic syphilis and gonococcus infection in their practice had decreased, remained stationary or increased, in 1922 as compared with 1921.


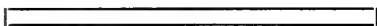

Acute Syphilis

Decrease	54.8%	
No Change	23.6%	
Increase	21.6%	

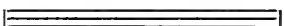


Acute Gonococcus Infection

Decrease	43.7%	
No Change	25.6%	
Increase	30.7%	

Chronic Syphilis

Decrease	35.0%	
No Change	37.6%	
Increase	27.4%	

Chronic Gonococcus Infection

Decrease	28.5%	
No Change	38.9%	
Increase	32.6%	

*The inquiry included the membership of the American Urological Society and the American Dermatological Association. Replies were received from 222 persons.

**The question asked: In your opinion, is there an increase or decrease in venereal

disease infection in your community from the rate in previous years?

***The question asked: Have you noted any increase or decrease in 1922, as compared with 1921, in the number of cases treated by you?

patients each year. After that, for perhaps a period of five or ten years, there is probably but little fluctuation. During those years should there occur any marked increase or decrease in the number of patients seen, that fact may well be regarded as significant of the health of the community.

In the Genito-urinary Department of the Brooklyn Hospital which I attend, the number of admissions remains about the same as it was five years ago. There has been little change in the past five years.

This situation is also true of the out-patient service, inasmuch as so many factors operate in making such a service popular or unpopular:

Both of my clinics are rather new, a Philadelphia informant states, and if one would judge from the rapid increase in clinic patients the impression would be created that venereal disease is greatly on the increase.

If I were to give you the statistics of my clinic, a Baltimore director replies, the figures would rather indicate that the incidence of new infections is on the increase rather than on the decrease, a condition which I do not believe at all exists. The reason for this apparent increase in the number of

patients visiting our clinic is the fact that the clinic is older, that its prestige has been added to by the recommendations of the patients previously treated, by the educational propaganda constantly carried on and by means of social service work. If I were to give you my private office statistics, the amount of venereal infections treated by me in the last year would be lower than that of one year ago.

From a consideration of these facts herein stated, therefore, I feel that any statistics that I would offer you would lead you to incorrect conclusions. There is no doubt in my mind, however, that there is both a relative and absolute decrease in the incidence of new infections in venereal diseases.

As these replies indicate, it is possible that the diseases could be declining without this being indicated by the replies to this question. It should be added that it is quite impossible to determine the trend of a disease from the data for two consecutive years, because of fluctuations from year to year. The number of cases treated might follow annual fluctuations on the part of business conditions or other factors. The results are shown in the following table and the accompanying graph.

TABLE A

Number and percentage of dermatologists and urologists estimating that acute and chronic syphilis and gonococcus infection in their practice had decreased, remained stationary, or increased, in 1922, as compared with 1921.

Infection	Number of Estimates					Percentage			
	Decrease	No Change	Increase	Total Reporting	No Report	Decrease	No Change	Decrease	Total Reporting
Acute Gonococcus.....	109	47	43	199	23	54.8	23.6	21.6	100.0
Acute Gonococcus Infection..	77	45	54	176	46	43.7	25.6	30.7	100.0
Chronic Syphilis.....	69	74	54	197	25	35.0	37.6	27.4	100.0
Chronic Gonococcus Infection.	49	67	56	172	50	28.5	38.9	32.6	100.0

The data suggests that there was a decrease in the number of acute syphilitic infections and perhaps of acute gonorrheal infections treated by these physicians. This may possibly mean a decrease in the incidence rates of acute syphilis in 1922 as compared with 1921 in the communities in which these men practiced. Whether, even if the decrease is real, it indicates a true downward trend, cannot be determined from this inquiry.

In the case of chronic syphilis and gonococcus infection there was *no* indication of any decrease or other signifi-

cant change. Although the proportion of syphilis cases reported to the American Dermatological Association by a portion of its membership shows an increase from 10% (in 1898-1911) to 17%, analysis indicates that any real increase has been in the number of asymptomatic and tertiary cases (rather than in the acute cases). In 1916, the ratio of tertiary to primary and secondary cases was as 1.6 to 1; whereas by 1921*, it was 2.7 to 1. A summary of cases reported to the American Dermatological Association follows:

PER CENT OF SYPHILIS IN CASES REPORTED BY MEMBERS OF AMERICAN DERMATOLOGICAL ASSOCIATION, 1898-1911, 1916, 1921.

Year	Total Cases including Syphilis	Syphilis	
		Number	Per Cent
1898-1911	679,376	68,949	10.1
1916	58,387	7,589	13.0
1921	48,611	8,512	17.5

In a still further question, the physicians were asked to state how great, in their opinion, were the increases or decreases they had reported**. Many were unable to do so. The following table gives the results for those who did specify the percentage of change, and indicates the great variation in the estimates.

II.

As major determining factors in the trend of syphilis and gonococcus infection, these 222 dermatologists and urologists stress educational publicity, prophylaxis, prohibition enforcement and business depression. These various factors moreover, constitute an interesting canvass of the present status† of venereal control.

EDUCATIONAL PUBLICITY

Educational publicity is more frequently noted as a factor modifying the venereal disease rate than any other influence. Special reference to it is made by more than one-fourth the dermatologists and urologists. Their interest is more frequently in the educational influence exerted by Army medical measures during the war, rather than in current public health education.

*2,689 cases considered.

**The question asked: What is your percentage estimate of the increase or decrease in the number of cases treated by you?

†The inquiry asked: What, in your opinion, are the reasons for this increase or decrease in the venereal disease infection rate?

TABLE B

Number of dermatologists and urologists estimating specified percentage changes in the number of venereal infections treated by them in 1922 as compared with 1921.

Estimated Percentage of Change	Acute Syphilis	Acute Gonococcus Infection	Chronic Infection		
			Venereal	Including Syphilis*	Including Gonococcus*
(Increase)					
90% and over	2	3	2	2	2
80%—71%		1			
70%—61%					
60%—51%					
50%—41%	6	3		1	1
40%—31%	1	2	1	1	1
30%—21%	5	3	1	2	4
20%—11%	2	11	10	11	13
10%—1%	21	25	11	16	17
0	47	45	48	74	67
(Decrease)					
1%—10%	15	8	2	5	3
11%—20%	15	6	4	6	6
21%—30%	21	17	6	7	6
31%—40%	3	5	5	5	5
41%—50%	17	9	5	5	6
51%—60%	2				
61%—70%		1			
71%—80%	5	4	2	2	2
Total	162	143	97	137	133
No report	60	79	63	85	89
Plus Quartile	0	6%	2%	0	4%
Median	0	0	0	0	0
Minus Quartile	24%	21%	0	0	0

*While the majority returned estimates for chronic venereal infection, 62 schedules returned individual estimates for chronic syphilis or gonococcus infection and are here included.

Several physicians refer specifically to the current educational measures, as follows:

Although there is no change in incidence, more chronic cases are coming to be cured as a result of public health education.

The probable decrease is due to more educational propaganda from Federal, State and City health departments—also, practice of prophylaxis by individuals exposed.

Military Control

It is the large-scale educational dem-

onstrations of venereal disease control conducted by the Army during the recent war which a large number of physicians single out for special comment such as the following:

The World War-time propaganda to keep soldiers fit was an impressive education to the people—to the soldiers, and they helped educate the general public.

Through enlisted men their associates have likewise been instructed in methods used to prevent venereal disease, resulting in a decrease.

The decrease in incidence is due to prophylaxis taught the boys in the Army.

The decrease is due to a certain amount of prophylactic wisdom acquired through service in war.

In my judgment the reason for the increase is due to the meagre instructions on prophylaxis given to the soldiers during the war and due to the fact that they learned of several remedies for prophylaxis and treatment which in themselves are not sufficient either to prevent in one case or to cure in another. In other words, the increase is due to the smattering instructions which they received.

My observation has been that the instruction given men in the Army and Navy, plus the knowledge they gained of prophylaxis, has been largely responsible for the decrease. Some of this knowledge has passed to prostitutes who, I am advised, take more pains to employ proper precautions.

It is especially to be noted that the ratio of acute venereal disease in men who were in the army is distinctly less. The lessons taught by prophylaxis treatment seem to be felt.

The probable decrease is due to education—especially of those who went to war—they have been seen by men who have instructed them in the dangers and necessity of prophylaxis.

Education by Clinics

The special clinic treating cases of syphilis and gonococcus infection is referred to as an educational center.

The decrease in our community is due to the effect of treatment, explanation and personal information given patients at venereal clinics; one informant advises,

National and State venereal disease clinics have also been of great benefit and great educators, another physician remarks.

Instruction in the Home

It seems to me, writes one physician, that an intelligent father could best decide whether his boy should be instructed in prophylaxis, or be dissuaded from sexual indulgence.

Instruction in the School.

The objections to public school teaching in venereal diseases would largely be removed, advises one correspondent, if such instruction was limited to anatomical and physiological facts, together with the results of venereal diseases. Teaching based entirely on the moral issue is in my judgement almost, if not entirely, useless.

Effects of Educational Publicity.

General effects of the educational propaganda are described very much as follows:

More and more patients, especially of the intelligent type, owing to educational propaganda, are acquainted with the great prevalence of venereal diseases and are keeping the venereal disease rate down, either by leading a life of continence or using chemical prophylaxis.

The lessons of the war were certainly appreciated by many soldiers—some seem to know more about prophylaxis than they did formerly—my patients certainly seem wiser and more careful than in the past.

The decrease which I observe is probably due to the fact that the patients are informed as to the value of prophylaxis and early microscopical examination of secretions. Educational public-

ity carried on since the war has been effective—often patients come in for prophylaxis now. Syphilis is more readily recognized early and treatment sought earlier than heretofore because of educational propaganda.

CHEMICAL PROPHYLAXIS

The second most frequently suggested factor in any assumed decrease or absence of increase in venereal infection, is the more general use of prophylaxis. In point of fact, nearly one-third of those mentioning educational publicity refer also to the gradual diffusion of knowledge of prophylactic measures.

ECONOMIC STATUS, RACE, AGE, MARITAL STATUS

Economic and Social Status.

Occasional reference is made to the important group of economic factors:

One physician believes there is a decrease of venereal infections among the better educated classes, but no change among the poorer classes.

Another considers a contributing factor in the existing rate to be the infection of young working girls who do not know what precautions are necessary nor how to employ them, and who in turn infect their male partners.

Race.

The question is raised of a possible increase among certain foreign-born groups, in accord with the little known factor of race.

The suppression of quack and venereal advertisements in the foreign-language newspapers of the country is also suggested by one physician.

Age

Notice is at times taken of age as an essential factor. One physician believes there are now less infections from

public sources and more from younger girls.

The decrease is not due to abstinence from sexual intercourse, suggests another. This seems on the increase among the very young; but is due to the fact of venereal prophylaxis after indulgence.

The younger group who did not see Army service must be educated now, one informant urges, after reiterating that the value of prophylaxis was proved in Army experience.

Marital Status.

The economic necessity of postponing marriage until later in life, is mentioned as a factor increasing infection.

BUSINESS CONDITIONS

Economic Depression.

Medical practice during the last year or two is rather frequently reported as having shown a drop on account of depressed business conditions.

In Minneapolis, for example, practice is said to have been very slow in 1922, some physicians suffering a decrease of 25-50 per cent.

During the war and immediately after, laborers and mechanics were receiving wages at a high rate, writes the director of an outpatient service. As a result of this prosperity when they sought treatment for venereal disease infection they came to a specialist because they could afford his fee. In the present state of our economic depression they either seek treatment from the general practitioner, the free clinic or the drug store clerk.

General Practitioners.

Whereas in busy and prosperous times general practitioners refer a

greater number of venereal disease infections to the specialist, it is stated that more patients are being treated by general practitioners than in previous years. Several physicians therefore recommend more thorough instruction of the practitioner as to the seriousness of these diseases and proper treatment.

In Minneapolis, says a physician of that city, nearly everyone in the profession is believed to be treating syphilis as it comes into the office. The specialist, therefore, gets less referred cases.

Free Clinics.

Free treatment in hospitals and outpatient services, particularly where afforded by large municipal clinics, is stated to draw cases from the specialist.

As far as I am able to judge the decrease in cases of syphilis treated by professional syphilologists is due to the increase of public clinics, writes one correspondent—and to the fact that a large proportion of general practitioners are now treating their own patients, where formerly they sent them to the syphilologist.

As a partial offset to this condition, a physician suggests that the publicity now given the free clinic be given in part to the individual dermatologist and urologist.

Druggists.

The one thing that encourages infection, according to a physician is the druggist treating the disease.

Specialties.

There are also more and more men taking up venereal disease treatment and genito-urinary work as a specialty, says a medical director, with the result that competition is greater. At the pres-

ent time, I have a dozen or more assistants than I formerly had and each one of these men in a legitimate way takes from me in the course of the year a certain amount of work.

TREATMENT

The superior efficacy of modern therapeutics, it is believed, would limit syphilitic and gonococcus infection.

A decrease in acute lesions is possibly due to cases being better treated than in the past, suggests a dermatologist.

With reference to chronic syphilis, an apparent increase in the number of cases, it is pointed out, is due to our better clinical and laboratory methods of determining the existence of the disease.

Continued effort should be made to "standardize" the treatment of gonorrhea, advises a urologist. It seems lamentable that at this time there still exists great laxity and indifference on the part of many urologists to recognize the gravity of chronic gonorrhea. There are too many so-called "cures" in four to six weeks reported, which in my humble opinion is the reason for the frequency of recrudescences seen every day. A second specialist considers that a large number of chronic cases in both sexes are not cured but left to propagate gonorrhea.

I believe the rate has changed little, if any, concludes another—we are treating a larger proportion of the cases than formerly.

Early Treatment.

The period of contagiousness has been reduced, it is pointed out, by present-day treatment which renders the patient more quickly noninfectious.

At the present time, following ars-

phenamine administration, says one medical director, a patient is rendered noninfectious after a period of hours rather than days and weeks. As a result, the number of carriers are greatly reduced, with a resulting decrease in the number of new infections.

It is the general impression of the men connected with the clinic (Brooklyn), writes a urologist, that patients with gonorrhea are applying for treatment earlier in the course of their disease than formerly. This is very likely due to the fact that medicines are being less freely prescribed by druggists. I also feel that druggists are referring more cases to physicians and clinics than formerly, and that quack medicines are losing popularity.

Case Reports.

The utility of case reports in the control of venereal infection is given brief mention:

A suggestion is made that health officers receive a generous fee for reporting all venereal diseases. Not only are health officers at present lax in this regard, it is stated, but physicians will not report these infections to their respective health officers, while offering all kinds of excuses.

Forced registration is recommended by one specialist, who believes that without compulsion one physician reports and another does not, patients refusing to treat with the former.

Social Service.

Reference is also made to the value of "follow-up" social service methods in improving treatment and indirectly lessening infection:

The increase that I noted, advises one physician, is due to improved facil-

ities for handling cases—co-operation by social service agencies of various types in bringing in contacts or old asymptomatic cases (particularly in cases of syphilis).

Quarantine.

Quarantine of prostitutes while infectious, thereby compelling treatment, is included as a factor limiting infection.

We compel examination of prostitutes and quarantine them when found contagious at Municipal Hospital, advises one informant. This is greatly reducing venereal diseases in Toledo. One physician suggests an arrangement whereby infected females in need of treatment and continuing to spread infection to other individuals should be sent for a nominal fee from some central office to private specialists, without going to the public clinic.

Lack of regulation is suggested as a factor in the increase of infection. In one Pacific Coast City, it is charged that laws are no longer enforced against prostitution—including cheap hotels, dance halls, street walkers and bootleggers—narcotic, moral and dry squads of police having been discontinued as special details.

On the other hand, regulation which closes houses and hotels where electric lights, soap, water and prophylaxis could be and usually were used immediately, is blamed by another physician with having driven prostitutes to clandestine appointments where prophylaxis can not be used for hours.

In this connection is also mentioned the increase of outdoor exposures due to more frequent use of automobiles. One specialist adds: Three-fourths of

my cases give a history of infection on joy rides.

PROHIBITION ENFORCEMENT

Prohibition is emphasized as one of the major factors in any assumed decrease of venereal infection. The closing of the saloon and the difficulty in obtaining alcoholic beverages, especially light wines and beer, which lessen the natural inhibitory influences, are believed to result in fewer exposures. Comment follows:

My honest opinion is that the decrease is due more to prohibition than to any other factor.

I personally believe one great reason is the lessened power of alcohol, as I have had many patients who could tell me nothing except they were drunk at the time. Two busy druggists recently told me that they had not sold an urethral syringe nor a "clapp" remedy in a year where they formerly sold scores.

It is my impression that the vast majority of the better classes who develop venereal diseases acquire them while under the influence of alcohol. There is no question but that prophylaxis is used more widely since the war, but the good that this offers is, in my opinion, more than offset by the influence of alcohol.

Several physicians, also, point to alcohol as a factor in any increase in venereal infection. They suggest that present inferior alcoholic beverages, particularly the synthetic whiskey known as "moonshine", are demoralizing; and that the carrying of liquor has increased among the elements whom venereal infections are more prone to affect. Another physician refers to the

illicit traffic in drugs as a factor in increasing venereal infection.

III.

CONCLUSION

1. Insofar as reliance be placed in expressions of opinion, these estimates by some 200 dermatologists and urologists suggest a possible *decrease* in cases of acute syphilis during the past year.

2. No such tendency to decrease appears in the estimates of chronic venereal infections during the past year.

3. Among the factors considered by these dermatologists and urologists to have influenced venereal disease rates, educational publicity is given prominence. Special reference is here made to the educational influence of medical control measures operating in the National Armies during the recent war.

4. Medical prophylaxis is the second factor most frequently reported as limiting venereal infection. Many physicians make reference to the gradual diffusion of prophylactic knowledge.

5. Improved methods of diagnosis and treatment, national prohibition enforcement and general economic conditions are other major factors reported to have influenced morbidity rates of syphilis and gonococcus infection.

IV.

Data secured by the Public Health Service from venereal disease clinics furnishing monthly reports, in so far as it has statistical significance, is not inconsistent with the suggestion that there may possibly be a decline in the acute venereal infections. The reports

from these outpatient services covering 282,027 infected persons may supplement to some extent the estimates from private practice. The monthly average of new admissions per clinic in 1921 and 1922 by States is shown in the following table:

TABLE C

States ranked according to the percentage of increase or decrease in the monthly average admissions per venereal disease clinic reported in 1922 as compared with 1921.

STATES SHOWING INCREASE

Rank	State	Monthly average new admissions per clinic		Percentage change
		1921	1922	
1	California	19.9	35.3	77.3
2	Utah	10.8	15.0	38.9
3	West Virginia	14.9	20.4	36.9
4	Oregon	33.9	46.2	36.3
5	Washington	24.3	32.2	32.5
6	Nebraska	12.3	15.0	22.0
7	Texas	76.1	92.2	21.1
8	Illinois	25.5	30.8	20.7
9	Wyoming	7.0	8.3	18.6
10	New Mexico	6.2	7.1	14.5
11	Kentucky	16.2	18.3	12.9
12	Missouri	42.0	45.2	7.7
13	Florida	33.9	36.0	6.1
14	Wisconsin	6.7	7.0	4.5
15	Rhode Island	10.9	11.1	1.7
16	Delaware	12.1	12.0	0.8
17	Maine	6.1	5.9	3.2
18	Tennessee	63.5	60.8	4.2
19	New Hampshire	6.6	6.3	4.5
20	Kansas	19.9	18.9	5.0
21	South Carolina	77.4	72.5	6.4
22	Ohio	32.6	30.1	8.6
23	Colorado	18.0	17.5	7.5
24	Vermont	3.9	3.6	7.7
25	Minnesota	20.2	18.2	9.9
26	Alabama	73.9	66.3	10.3
27	North Carolina	24.7	22.0	10.9
28	Indiana	25.4	22.6	11.0
29	New Jersey	20.6	17.4	15.6
30	Georgia	61.9	50.3	18.8
31	Virginia	44.3	35.4	20.0
32	South Dakota	3.4	2.6	23.5
33	Louisiana	83.7	62.8	25.0
34	Iowa	16.2	11.8	27.2
35	Massachusetts	28.3	20.5	27.6
36.5	North Dakota	4.1	2.9	29.3
36.5	Connecticut	20.5	14.5	29.3
38	Michigan	42.4	29.0	31.6
39	Arkansas	49.7	33.5	32.6
40	Pennsylvania	19.5	12.8	34.4
41	Mississippi	67.3	43.3	35.6
42	Montana	4.3	2.7	37.2
43	New York	17.6	10.9	38.1
44	Maryland	60.1	36.4	39.4
45	Oklahoma	37.1	20.3	45.3

A decrease from 29.6 to 26.2 in all States combined is to be noted, but it is questionable whether this is statistically significant. The great variation in the results for individual States is evident. A comparison of all vene-

real case reports (from both clinics and private physicians, etc.) received by State Boards of Health during the past year and in 1921, shows a decrease for syphilis of 12,266 or 6.7%, and for gonococcus infection of 36,968, or 19.5%. Thirty-five states show decreases and 11 increases in the following table.

Whether these figures indicate an actual falling off in the incidence of syphilitic and gonorrheal infections can not be stated, much less is it possible to determine whether, if there was a decline in 1922 as compared with 1921, it indicates a downward trend in the morbidity from these causes.

ACHIEVEMENT IN VENEREAL DISEASE CONTROL

*For the Fiscal Year, July 1, 1921—
June 30, 1922 and for the Months,
July-December, 1922.*

Federal and State Co-operation in Venereal Disease Control continued during the year ending June 30, 1922, an unexpended balance of about \$272,000 from the 1921 appropriation being available for allotment to the States.

MEDICAL MEASURES

During the year 541 clinics reported to the Public Health Service, among them some that were no longer receiving federal Aid. In the course of the year 141,279 patients were admitted to these clinics. This is a rate for each clinic of 261 which is a decrease of 57 per clinic from the 1921 rate. Again there were more cases of syphilis than of gonorrhea handled by the clinics in spite of the greater incidence of the latter.

TABLE D

States showing the greatest increase or decrease in the number of cases of venereal diseases reported in 1922 as compared with 1921

STATES SHOWING INCREASE

Rank	State	Per cent	Rank	State	Per cent
1	Missouri	56.6	7	Missouri	16.0
2	Illinois	51.7	8	Arkansas	13.4
3	Florida	49.3	9	Georgia	8.5
4	Idaho	34.8	10	South Dakota	6.3
5	Delaware	23.1	11	North Carolina	2.1
6	Kentucky	19.2			

STATES SHOWING DECREASE

12	Colorado	0.3	30	Nebraska	23.3
13	Massachusetts	1.7	31	Louisiana	24.1
14	New York	2.7	32	Alabama	24.3
15	Pennsylvania	3.7	33	Virginia	25.0
16	Indiana	5.1	34	Iowa	25.3
17	Pennsylvania	7.7	35	North Dakota	25.7
18	Maine	10.2	36	Florida	27.8
19	California	10.5	37	Utah	29.9
20	Vermont	10.7	38	New Mexico	35.0
21	Maryland	12.4	39	Connecticut	35.6
22	Kansas	15.6	40	Arizona	40.7
23	Michigan	15.7	41	South Carolina	41.8
24	Wisconsin	16.3	42	Illinois	44.6
25	Texas	17.0	43	Montana	45.2
26	New Jersey	19.2	44	Wyoming	60.3
27	Minnesota	19.5	45	Mississippi	60.8
28	West Virginia	20.7	46	Oklahoma	68.0
29	New Hampshire	21.3			

The most encouraging aspect of the clinic work in 1922 was the relatively larger number of persons discharged as noninfectious. The increase in the discharges for 1922 was 8 times the increase in the number of new admissions.

Over 2,000,000 treatments were given in the clinics, an average of 3,780 per clinic. More than 500,000 doses of arsphenamine were administered. Increases were also made in the number of Wassermann tests and of examinations for gonococcus infection.

Reports of cases of venereal diseases received by the State boards of health totaled 333,718 in 1922, a decrease of 13 per cent from the number received in 1921. Of these 171,824 or 52 per cent were syphilis, and 152,959 were gonorrhea. In comparing the reports received by the States in 1922 with those received in 1921, it was found that 11 States received more reports in 1922

than in the previous year. Five States, Oregon, Rhode Island, Kentucky, Arkansas, and Missouri showed an increase in the number of reports received for both years.

The question of whether this decrease was due possibly to a lessened incidence in infection is one that cannot be answered from the evidence at hand. Venereal-disease-control officers are agreed that better co-operation from the doctors in reporting cases coming to their attention is needed. Inasmuch as the clinic reports of admissions for 1922 were in excess of those made in 1921, the decrease for the year must have occurred largely in the cases reported by physicians.

A monthly survey of reports received by the States showed that the highest point was reached in November, 1921, with a total of over 33,000 cases of gonorrhea and syphilis. There seems to be

a slight tendency for a larger number of cases to be reported in the fall, but the data available are not sufficient to indicate whether this is a seasonal trend in incidence or whether it is due to other factors.

Reference was made last year to the statements received in 1922 from State penal institutions to the effect that 20 per cent of the male admissions and 35 per cent of females entering, who were examined, presented a positive Wassermann reaction. Reports received from reformatories and industrial schools showed 9 per cent of the Wassermann reactions on males entering and 16 per cent on female admissions to be positive.

A report was also made last year of the statements received from 1,700 hospitals, 42 per cent of which declared that they admitted cases of syphilis showing primary or secondary lesions, and 41 per cent of which said that they accepted active cases of gonococcus infection.

EDUCATIONAL MEASURES

The decrease in the volume of educational work which was in evidence in 1921 continued through 1922, due primarily to lack of funds. Nevertheless, over 2,000,000 educational pamphlets were distributed, 91 per cent by the State boards of health. Requests for pamphlets numbering 85,800 were received by the States and the Public Health Service.

Over 3,000 showings of educational exhibits and sets of lantern slides were held during the year. Nearly 7,000 lectures were given under State or federal auspices. Moving pictures, dealing with the venereal diseases and their effect upon the individual and society

were presented to 1,200 audiences. A total of over 2,000,000 persons attended these meetings.

A new development in the educational work of the States and Public Health Service was the series of 10 social hygiene conferences for nonprofessional women. Seven of these conferences were held in connection with public health institutes, and it was possible to utilize some of the faculty of the institutes on the conference programs. The purpose of these conferences was to educate women to understand the problems of social hygiene and venereal disease control in order that they might be trained to do community work in an intelligent way.

In every case the active co-operation of the women's organizations was secured and at two meetings of the Women's Advisory Council to the Public Health Service, held in Washington, plans for the conferences were worked out and endorsed by representatives of the leading women's organizations of the country. Over 2,700 women attended these conferences, and in several instances study groups were formed for the purpose of carrying on the work among women.

LEGAL MEASURES

The year was nonlegislative in most of the States, and only two States reported the passage of laws for the purpose of controlling venereal diseases. The Public Health Service was advised of the passage of six city ordinances.

PUBLIC HEALTH INSTITUTES

During the winter and spring of 1922, 16 public health institutes were held in various cities of the country under the auspices of State boards of

health and the Public Health Service. These schools of instruction, lasting in most cases one week, were modeled to a considerable extent upon the Institute on Venereal Disease Control and Social Hygiene held in Washington, November, 1920. They covered, however, a much broader field. The success lay in the inspiration and the stimulation for further individual study which health officers, private practitioners, educators, heads of institutions, and others received through coming into closer contact with some of the newer aspects of public health. The institutes were also of value to the communities in which they were held because they centered general attention on the problem of public health, and helped to create active groups, especially among women, of those interested in a broad and constructive program.

The total registration at the 16 institutes was 6,254, an average of nearly 400 for each. This figure does not include, however, all those attending, inasmuch as a considerable number of visitors at special lectures did not register. Attendance varied all the way from 100 to 1,000. The Chicago institute was the largest. At Indianapolis, the excellent organization of the State health activities enabled large numbers of local health officers and nurses to attend. At Hartford the New England institute, drawing from a considerable population, and being well advertised, had a large attendance. In Kentucky and Kansas the institute was combined with the annual school for health officers, and in this way a large attendance of those most interested was secured.

There was no exact uniformity in the courses given at the various

institutes. In most cases the newer aspects of public health were covered. Of the courses offered those in syphilis, gonorrhea, tuberculosis, child hygiene, and mental hygiene were most popular. The Chicago institute was devoted to social hygiene and the venereal diseases, and was especially successful.

High-grade facilities were provided for all the institutes. Clinics were held in connection with a number of courses. At the New York Institute, which was held simultaneously with the meeting of the State medical society, no formal lectures were given; only a series of clinics on the venereal diseases. This institute was a marked success. Practical clinics are of great educational value to the partially trained medical man, particularly so in connection with courses in syphilis and gonorrhea.

Mention has already been made of the social hygiene conferences for non-professional women which were held simultaneously with 7 of the institutes. The importance of gaining the intelligent support of women in public health work is generally recognized. This is especially true in the field of venereal disease control where women have an important part to play in the education of children, in the preservation of a home, and in the formation of community ideals.

The utilization of the new knowledge in the field of public health can best be accelerated by carrying it to the workers. The institutes reached a considerable number of this group. Pending the development of more effective measures, they would seem to meet, to some extent, the need for more education on the part of the partially trained sanitarian. They would seem also to provide

a method of stimulating general public interest and of giving community leaders a comprehensive view of the health problems which they are called upon to solve.

RECENT ACTIVITIES IN VENEREAL DISEASE CONTROL

For the fiscal year ending June 30, 1923, an appropriation of \$400,000 was made by Congress for venereal-disease control purposes, \$225,000 of which was for allotment to States. All but six States, including the District of Columbia, are receiving federal funds this year, and three of these six States have money of their own available for this work. For the year ending June 30, 1924, a federal appropriation of \$100,000 will be allowed to States fulfilling the regulations promulgated by the Secretary of the Treasury.

Reports received from the clinics for the first six months of the present year show a further decline in the average clinic attendance. The clinics as a whole, however, seem to be doing more efficient work, judging from the larger proportion of patients discharged as noninfectious and from the increase in the number of treatments per patient which are being given. Reports of cases of infection received by State Boards of Health are slightly more than 50 per cent of the total for the year 1922. Taking into consideration the decrease in clinic attendance, this would seem to indicate better co-operation on the part of the doctors.

It is to be regretted that reports of the work of all the important clinics are not being received, as any study of clinic data should be based upon reports from all the larger treatment centers of the country. The Hospital

Number of the Journal of the American Medical Association, entitled, "Dispensary Service in the United States," gives a total of 831 dispensaries for the treatment of venereal diseases. The list of clinics given does not include some of those from which the Public Health Service is at present receiving reports, so that the total number of these dispensaries is probably in the neighborhood of 900. Yet the Service is receiving reports from only 528 clinics at the present time. Moreover, the gaps in the reporting service are serious. No reports at all are being received from two large and important States. No reports are being received from a large city in another State, although the American Medical Association reports approximately 80 clinics in this city. Only 5 of the 50 clinics in still another city are reporting their activities to the State Department of Health. The Public Health Service believes that these dispensaries could furnish valuable additional data to that already being received, and that it would be well to make every effort to secure regular reports from these clinics.

A special study of the work of 375 clinics as reported in 1922 is in progress, with a view to determining the relative efficiency of the clinic in meeting the needs of the patient and of the community. This study is being conducted by the Public Health Service according to the following aspects of clinic work:

Total clinic attendance and the number of new admissions to clinics per 1,000 population, respectively.

Visits per patient and per 1,000 population.

Visits per physician, nurse, and social worker, respectively.

Visits per clinic hour.

Clinic hours per 1,000 population.

Clinic physicians, nurses, and social workers per 100,000 population, respectively.

Treatments per patient.

Atsphenamine doses and Wassermann examinations per syphilis case.

Percent of patients discontinuing treatment without permission.

The number of visits per patient in attendance for the year, as shown by this study, was 9.5. For the clinics studied only 31 per cent of the patients discontinued their treatments without official permission. Much of the work on this study has been finished, and all results will be available shortly.

The Public Health Service has enlarged its monthly bulletin of abstracts of medical and public health literature to include original articles. Its title has been changed to "Venereal Disease Information," and beginning with May, 1923, it is to be issued by the Government Printing Office. The official mailing list, which contained about 300 names at the beginning of the year now contains 3,000 names, and it is estimated that there will be a paid subscription list of approximately 15,000 when it is published. The official mailing list now includes the following:

- State health departments.
- Venereal-disease clinicians.
- Hospital libraries.
- Medical society libraries.
- Medical school libraries.
- Medical journals.
- State hospitals for the insane.

State hospitals for the criminal insane.

State penitentiaries.

Public health nurses' associations.

Training schools for nurses.

Social service agencies.

State industrial schools for delinquents.

In addition, the Venereal Disease Division is prepared to furnish to physicians abstracts and references on any phase of venereal disease.

The question which recurrently comes to mind as we notice the falling off in attendance at the venereal-disease clinics and the decrease in the number of cases of infection which are being reported to State health departments is whether the incidence of infection is less than it was a year and a half to two years ago. The State Board of Health in Mississippi advised that the percentage of physicians reporting in that State had increased from 90 to 96 per cent in the years 1918-1921, but that the total cases of venereal diseases which were being reported to the State Bureau of Vital Statistics was on the decrease. The June, 1922 issue of the Statistical Bulletin of the Metropolitan Life Insurance Company included a statement to the effect that there had been a decline of 21 per cent in the mortality rate due to syphilis among industrial policyholders during the previous four years, the figure for 1921 being 13.1 per 100,000 as compared with 16.6 in 1917.

At the request of this committee the United States Public Health Service sent a questionnaire to members of the American Urological Society and the American Dermatological Association with a view to securing an expression of opinion, based upon the experience

of these specialists, regarding this question of a possible decrease in incidence of infection.

The replies received from 222 members of these organizations varied. That venereal disease infection was decreasing was the opinion of the majority. The remainder of those replying either thought that incidence was on the increase or that there had been no change in trend.

A decrease in the number of acute infections, especially syphilis, was reported by most of those replying. No indication of any decrease or other significant change in the number of chronic infections was given.

The factors mentioned which might be contributory causes of a decrease in the number of acute infections were (1) educational publicity, including the work done by Federal, State, and municipal authorities, and the results of instruction given in the Army and Navy; (2) chemical prophylaxis, the efficacy of which was demonstrated during the war; (3) the effects of prohibition enforcement, resulting in fewer exposures due to relaxation under alcoholic intoxication of the natural inhibitory forces of the individual; (4) better diagnosis and treatment which serve to detect the presence of infection and to limit the infectious period.

The results of this inquiry cannot by themselves be taken as indicative of any real change in incidence of infection. The group to which the query was sent was small, and its clientele for the most part was limited to the upper social groups. Additional studies based upon actual data collected from all sources will have to be made before definite conclusions can be drawn.

The most important aspect of the

educational work of the current year has been the demonstrations of the use of film, entitled, "Science of Life." The 12 reels of this film had been in preparation for over a year. They are designed for use in high schools in connection with courses in biology, physiology, and sex hygiene. Demonstrations as to how the reels should be presented are being made by an officer of the Public Health Service upon the request of the State boards of health. Reports of 102 showings before audiences numbering 39,199 persons have already been received. Eleven States so far have had these demonstrations.

A set of slides for girls, comparable to the "Youth and Life" exhibit has been issued, and three other exhibits are ready for publication by the Government Printing Office, one for school teachers, one for adults, and one for colored girls.

DISCUSSION

Dr. Trotter, Hawaii: The report of the committee is very interesting. You have received the benefit of Federal aid in your venereal disease work, we in Hawaii were not so fortunate. We have, however, a venereal disease campaign. I was particularly interested in Dr. White's statement that the hospitals would not receive or did not care to receive venereal disease cases. I would like to ask him the reasons for that.

Dr. King, Indiana: I cannot altogether agree with Dr. White that the character or extent of venereal disease control work is to be judged or determined by the extent of appropriations made for that purpose. Venereal disease control work, at least in Indiana, is gradually taking its proper and permanent place in public health work and is not being carried on so much as a special line of public health activities. It seems to me this is the measure of success, namely—the extent to which local communities assume their responsibility for venereal disease control work, the same as they now

STATISTICAL SUMMARY OF ACTIVITIES IN THE CONTROL OF VENEREAL DISEASES FOR THE FISCAL
 YEARS 1919, 1920, 1921 AND 1922

	1919	1920	1921	1922
<i>Medical Activities</i>				
A Cases of venereal diseases reported to State boards of health:				
I Gonorrhea	131,193	172,387	189,927	152,559
II Syphilis	100,466	142,869	181,090	171,824
III Chancroid and others	7,843	10,861	13,226	8,935
Total	239,502	326,117	387,243	333,718
B Doses of arsenphenamine or similar product distributed by State boards of health	118,055	328,382	532,778	517,250
C Clinics				
I Clinics operating under joint control of State boards of health and Public Health Service	237	427	483	552
II Clinics included under I established during the year	145	190	90	95
III Clinics reporting activities	167	383	142	541
IV Reports received from clinics:				
a Patients admitted	59,092	126,131	140,748	141,279
b Patients discharged as non-infectious	6,922	34,215	55,467	60,169
c Treatments given	527,392	1,576,542	1,956,400*	2,045,232
d Wassermann tests made	63,929	175,872	251,885	298,486
e Microscope examinations for gonococcus infection	89,419	155,275	185,325	192,745
D Requests for medical information received by the Public Health Service			2,605	1,047
<i>Educational Activities</i>				
A Pamphlets				
I Requests for pamphlets received by:				
a Public Health Service from:				
1 Individuals	48,855	41,617	29,083	25,157
2 Public officials and organizations	26,877	6,491	7,569	7,078
3 Industries, commercial and labor organizations	1,566	3,211	2,604	2,858
Total	77,298	51,319	39,256	35,093
b State boards of health from:				
1 Public Health Service for compliance	19,032	32,519	18,346	11,175
2 The public	174,683	103,515	49,302	50,798
Total	193,715	136,034	67,648	61,973
c Gross total requests for pamphlets received	271,013	187,353	106,904	97,066
Minus requests received by State boards of health from the Public Health Service	19,032	32,519	18,346	11,175
d Net total requests for pamphlets received	251,981	154,834	88,558	85,891
II Pamphlets distributed:				
a By Public Health Service:				
1 In response to requests from:				
1a Individuals	422,961	108,332	49,238	24,712
2a Public officials and organizations	2,666,070	403,126	122,227	123,344
3a Industries	224,793	100,667	7,967	1,362
2 Directly to:				
1a The public official mailing lists and general circularizations	2,183,655	982,334	120,641	59,862
2a State boards of health	831,029	667,534	34,241	132,154
3a Public Health Service field officers	242,658	52,687	7,769	18,500
4a States in draft campaign	3,143,700			
5a Other field agencies	465,906			
Total	10,120,772	2,314,680	342,083	359,934
b In the field by State boards of health	5,817,042	6,488,333	3,818,670	2,071,046
c In the field by States in draft campaign	2,286,912			
d In the field by clinics	131,009			
Total	8,234,963	6,488,333	3,818,670	2,071,046
e Gross total pamphlets distributed	18,355,735	8,803,013	4,160,753	2,430,980
Minus pamphlets distributed by the Public Health Service to:				
1 State Boards of Health	831,029	667,534	34,241	132,154
2 States in draft campaign	3,143,700			
3 Public Health Service field officers	242,658	52,687	7,769	18,500
Total subtracted	4,217,387	720,221	42,010	150,654
f Net total pamphlets distributed	14,138,348	8,082,792	4,118,743	2,280,326
III Pamphlets and placards purchased and reprinted by State boards of health	10,510,524	5,816,830	4,081,697	1,698,711
IV Pieces of the industrial program purchased	668,668	186,588	84,763	40,295
V Educational venereal disease pamphlets issued by the Public Health Service	50	5	7	5
VI Revisions of educational venereal disease pamphlets issued by the Public Health Service		4	4	
<i>E-Lectures and addresses:</i>				
I Lectures and addresses reported by:				
a Public Health Service	345	563	607	948
b State boards of health	7,210	11,797	8,384	5,983
c Clinics	654			
Total	8,209	12,360	8,991	6,931

STATISTICAL SUMMARY OF ACTIVITIES IN THE CONTROL OF VENEREAL DISEASES FOR THE FISCAL YEARS 1919, 1920, 1921 AND 1922—(Continued)

	1919	1920	1921	1922
<i>Educational Activities—(Continued)</i>				
II Average attendance reported by:				
(a) Public Health Service.....	226	206	217	152
(b) State boards of health.....	181	131	130	133
(c) Clinics.....	444			
Average attendance at total lectures reported.....	201	134	136	135
III Lectures at which exhibit material was used:				
(a) Public Health Service.....	74	92	13	76
(b) State boards of health.....	627	429	2,358	588
Total.....	701	521	2,271	664
IV Meetings under I at which resolutions were adopted:				
(a) Public Health Service.....	70	71		
C—Conferences reported by the Public Health Service.....	16	25	16	42
Average attendance.....	184	188	243	96
Conferences at which resolutions were adopted.....	16	22		
D—Exhibits and lantern slides:				
I Exhibits and slide sets loaned by the Public Health Service to:				
(a) State boards of health.....	441	45		188
(b) Public Health Service Officers.....	10			109
(c) Y. M. C. A.s.....	59	13		
(d) Others.....	41	72		214
Total.....	551	130		511
II Exhibits and slides purchased or borrowed by:				
(a) State boards of health.....	125	653	658	770
(b) Y. M. C. A.s.....	78	10	243	
(c) Others.....	18	13	155	1,075
Total.....	221	676	1,056	1,845
III Exhibit and lantern slide showings reported by:				
(a) Public Health Service.....	470	26	25	
(b) State boards of health.....	1,716	11,007	4,417	3,251
Total.....	2,186	11,033	4,442	3,251
IV Average attendance reported by:				
(a) Public Health Service.....	202	649	253	
(b) State boards of health.....	223	206	259	204
Average attendance at total showing.....	255	207	230	204
E—Motion picture films:				
I Motion picture films loaned by the Public Health Service to:				
(a) State boards of health.....	21	1		6
(b) Others.....	384	3		22
Total.....	405	4		28
II Motion picture films purchased or borrowed by State boards of health.....	65	55	136	45
III Motion picture showings reported:				
(a) Public Health Service.....	264	241	72	18
(b) State boards of health.....	1,134	1,916	1,612	1,188
Total.....	1,398	2,157	1,684	1,206
IV Average attendance reported by:				
(a) Public Health Service.....	522	338	374	174
(b) State boards of health.....	555	313	256	218
Average attendance at total showings.....	549	320	261	217
F—Folioty material:				
I Articles furnished magazines.....	3,228	320	4,192	9
II Periodicals containing articles received.....	157	118	176	12
III Circulation of articles published.....	4,470,756	3,190,786	1,780,795	126,600
<i>Legislative Activities</i>				
A—States receiving Federal funds.....	46	46	46	48
B—States enacting legislation for venereal disease control.....	40	**13	36	**2
C—City ordinances for venereal disease control.....	222	102	28	6

*Including a few clinics no longer under joint Federal and State control.

**Not including States making appropriation for venereal disease control purposes.

*Est.

assume their responsibility for street cleaning, communicable disease prevention, and other thoroughly established phases of public health activity. When I first came into public health work some years ago, a great deal of the time in meetings like this, was spent in the discussion of fly campaigns. Today we have practically forgotten all that, and why? Because the public has taken up the prevention and elimination of the fly and have walked off with it. In other words, it has become a thoroughly

established routine part of public health work. We are trying to develop the same situation in reference to venereal disease control in Indiana, and the public generally has become so familiar with the menace of venereal disease and so thoroughly convinced of the importance of the work that the public is very largely carrying on control work through various groups, such as women's clubs, business men's organizations, and local health departments. I wish to commend the proposition made in the re-

port of the work that is being carried out, that of a district service of information to physicians, and in this way having them appreciate what they can do in this work. It seems to me that this is one of the very best and most promising lines of endeavor. We took this matter up with the physicians of Indiana, and as was mentioned by Dr. White in his report, more than four hundred physicians expressed their willingness to receive this service and to pay the comparatively small fee of about fifty cents a year to cover the actual cost of printing. This brings to mind another thought, namely—that unless we can link up the physicians, the men who are actually practicing in the field, to all lines of public health work, we will fall far short of our objective. It is not a question of policy, it must be done. We must have intelligent touch with the practicing physicians and we must link them up with venereal disease control work in an intelligent and active manner.

In Indiana the number of patients coming into the clinics and the number of cases reported to the State Board of Health are on the decrease, and while this may not be a positive indication, I am convinced in my own mind that it does mean a decline in the number of cases of venereal infection. I do not feel that we have any reason for being discouraged because the number of cases being treated in the clinics or the number of cases being reported are decreasing, because I believe we should accept that as evidence that the campaign for the control of the venereal diseases is successful and that it is assuming its proper place in routine public health work.

Dr. S. W. Welch, Alabama: I was very much surprised at the note of pessimism that ran through the speaker's entire paper and I am very glad indeed to hear the note of optimism that marked the remarks of the last speaker. Every time I come to a public gathering of public health men or doctors my respect increases for the far-reaching medical statesmanship of Jerome Cochran who made the medical association of the State of Alabama its board of health. We have not any state medicine bugbear in Alabama because we cannot do anything in public health except by the consent of the medical profession through the local boards of health which are elected by the

county medical societies, and who recommend all the health officials of the state.

The whole superstructure is built on the sanction and approval of the medical profession. We have gone about this venereal disease control work in Alabama on a business-like basis. We have undertaken to eliminate all sentiment from all public health work and are going about it on the basis of its economic value in the development of the resources of Alabama. The election of the state health officer being in the hands of the state medical association is thus absolutely unaffected by political administration of any description. The county health officer elected by the county board of health which is composed of five doctors elected by the county medical society removes us from local political influence. We have organized free clinics in the large centers of population which have grown better year by year. In those centers of the state where the population has been such that it was impossible for us to furnish free clinics, we have appointed on the recommendation of the local board of health a co-operative clinician. We have in all 112 of these filling almost every small center of population in the state. There are only five counties in the state where treatment of venereal disease is not within reach of every citizen of that county. There is no use starting out with an educational program which creates a demand for public health work unless you create the machinery to satisfy that demand. There is no reason at all for the creation of the demand for any phase of public health work until you have first created a business organization which will meet that demand. We have at the head of our Bureau of Venereal Diseases a school teacher who has the entree to the public schools of the state. Venereal diseases among white people in Alabama have fallen at least thirty per cent in the last four years. And there is a material decrease among the colored people throughout the entire state. These co-operative clinicians will give the necessary number of treatments for syphilis at \$2.00 per shot and the employer of labor will pay for it on account of the increased efficiency of his labor. The infectious stage of the syphilitic is stopped at its beginning. Owing to the marriage law we have passed and the operation of those co-operative

clinics there is no question in the mind of any of us but what we are controlling it and we do believe we will reduce it to a minimum of perhaps twenty-five per cent of what it has been within the next few years. We have at one clinic now, sixty odd women of the underworld committed to the city jails as vagrants and kept there ninety days or until they are cured. That is one of the finest methods of control which we have. Each high school boy and girl when they enter high school is sent a pamphlet to read; literature and picture shows are accepted in the high school for both boys and girls. I feel absolutely positive in my own mind that the high school boy who has come to manhood from twelve to fifteen in the last five years is not taking the chances his predecessors and his father did. Now when it comes to the question of prophylaxis the women are right. I went to the president of the University of Alabama when we first knew about prophylaxis and proposed to establish a prophylactic station in the University making the argument that these were to be the sires of the next generation and we should preserve them. He laughed at me and said a thing of that kind would break up the University, women would not let their sons come there. The difference between a good citizen at 50 and a bad citizen at 50 is the fellow who tried. All of us are about alike when we start at 21 but the fellow who started chasing rainbows and had high ideals, when he reached fifty was looked upon as a good citizen, but the boy who did not and who believed that all of his efforts were useless, that there was necessarily a double standard, one for his mother and sister and one for himself, that fellow when he reached fifty was not a good citizen. Now let us have our high ideals and standards and be rainbow chasers. Let us struggle upward, and in the course of years we will attain that which we wish to attain.

REPORT OF COMMITTEE ON MENTAL HYGIENE

BY EUGENE R. KELLEY, M. D.,

*Chairman and State Commissioner of
Public Health of Massachusetts.*

Your Committee on Mental Hygiene

has conceived its duty to lie in collecting facts pertaining to the subject of particular concern to the sanitary administrators of Canada and the United States; of presenting in brief the form of organization, allotment of function and practical working programs of such governmental bureaus, divisions or departments in the several states and provinces as have been officially charged by legislative enactment with carrying out programs of mental hygiene work; and finally of presenting to the Conference an interpretation of the significance and probable lines of future development of mental hygiene as a governmental function with particular reference to the work of health departments.

The first of these objects has been achieved by circulating a questionnaire, the answers to which are now quite complete. These answers have been tabulated and summarized and in that form are presented as the main portion of this report. Forty-three states, seven provinces and five territories or insular dependencies of the United States have answered our questionnaire; only Alberta and Prince Edwards Island among Canadian provinces and Georgia, Maryland, Minnesota, South Carolina and Utah failing to reply to the second circular appeal for information. It would probably be a safe assumption to class these states and provinces among those submitting purely negative reports.

To justly determine just how much work reported upon as mental hygiene is truly "hygiene" work in contrast to the older type of supervisory and survey work relative to insanity and feeble-mindedness, is beyond the analyt-

ical powers of your Committee to decide.

The Mental Hygiene Division of the State Department of Mental Diseases of Massachusetts has submitted the only reply which throws any clear light upon the questions grouped as our second objective of inquiry. We do not know whether it is fair to conclude that this is the only really well organized, clearly defined state governmentally sponsored mental hygiene division now functioning in the two countries or not, but we present the admirable description submitted as a type of mental hygiene governmental organization.

For the third and really most important of our objectives and interpretation of the practical significance in relation to their own work to State and Provincial Sanitary Administrators, we had relied entirely upon one of our consulting members, Dr. Frankwood Williams, Director of the National Mental Hygiene Society. An unfortunately protracted illness has made it impossible for him to carry out this part of our proposed report. We therefore can only wait in hopes of getting this very important interpretation direct from him at our next conference.

Respectfully submitted,

EUGENE R. KELLEY,

Chairman.

W. F. COGSWELL.

APPENDIX I.

The Questionnaire Submitted.

I will not read the individual analysis but some of the things are interesting. The questionnaire which we sent

out to refresh your minds was very simple, but started like this—

Question I—Has any official action been taken in your state either in the shape of statutes or appropriations of money for the carrying on of any special investigations of the subject of mental hygiene or for routine educational work in this subject?

Question II—If so, who was directed to carry out this work, the state department of public health, the state authorities controlling insane hospitals, or some specially appointed commission?

Question III—If any such action has been taken, please send me a copy of the order or legislative action or resolve specifying the scope and the amount of money made available for mental hygiene work.

Question IV—Specify what activities are carried on in the form of a voluntary mental hygiene committee within your state and to what degree is their co-operation in this work between the state department of health and this special body?

Question V—If nothing of this character has been done, simply specify that fact and return the questionnaire.

As this is fairly brief we will submit the facts concerning what seemed to be the only clear-cut organization of mental hygiene in the United States, as a governmental organization which is a division of mental hygiene established as one of several divisions of the state department of mental diseases by the State Health Department of Massachusetts.

APPENDIX II.

REPORT OF MENTAL HYGIENE
DIVISION*State Department of Mental Diseases
of Massachusetts.*

An act establishing the Division of Mental Hygiene in the Department of Mental Diseases was approved June 8, 1922.

Section 3 of this act, outlining the functions of the Division of Mental Hygiene, reads as follows:

"The Department shall take cognizance of all matters affecting the mental health of the citizens of the commonwealth, and shall make investigations and inquiries relative to all causes and conditions that tend to jeopardize said health, and the causes of mental disease, feeble-mindedness and epilepsy, and the effects of employments, conditions and circumstances on mental health, including the effect thereon of the use of drugs, liquors and stimulants. It shall collect and disseminate such information relating thereto as it considers proper for diffusion among the people, and shall define what physical ailments, habits and conditions surrounding employment are to be deemed dangerous to mental health.

Such of the powers and duties conferred or imposed upon the department, relating to the cause and prevention of mental disease, feeble-mindedness, epilepsy and other conditions of abnormal mentality, as the commissioner may determine may be exercised and performed by the division of mental hygiene. In addition to said powers and duties, said division shall institute inquiries and investigations for the purpose of ascertaining the causes of

mental disease, including epilepsy and feeble-mindedness, with a view to its prevention. It may also establish, foster and develop out-patient clinics."

A special appropriation of \$25,000.00 to support the Division and to carry on preventive work in mental hygiene was passed by the Legislature of Massachusetts in January, 1923.

Program: The program to be followed by the Division of Mental Hygiene divides itself quite naturally into three distinct parts: 1. Research; 2. Clinics; 3. The co-operation of all work being carried on under the Department of Mental Diseases which pertains to the prevention of mental illness and which does not come directly under the supervision of the Director of the Division of Mental Hygiene.

The Division of Mental Hygiene extends its functions to co-operating with other departments in the state service, such as the Departments of Public Health, Education, and Correction; and with other centers where research is being carried on outside the state service, such as the laboratories of the Harvard Medical School, and the departments of research in the various social agencies. It is deemed not only advisable but necessary to make these broad contacts in order to prevent reduplication of effort and to facilitate research in the causation of mental diseases wherever possible.

Personnel: The Director of the Division of Mental Hygiene has selected a group of men highly qualified to consider the special research problems which have been undertaken for the ensuing year. The following is a list of the staff co-operating with the Division of Mental Hygiene and the projects which they are directing:

Dr. Abraham Myerson, Professor of Neurology at Tufts Medical School, directing a clinical study at the Massachusetts School for the Feeble-minded in Waverly, in an effort to isolate the preventable cases other than the purely hereditary group.

Dr. M. M. Canavan, Pathologist, Department of Mental Diseases, directing a research to determine the importance of focal infections as a causative factor in mental diseases.

Dr. Harry C. Solomon, Chief Therapeutic Research, Boston Psychopathic Hospital:

(a) directing a research in the biochemistry of the blood in cases of convulsions of an epileptic or epileptoid character.

(b) directing a review of the ten years' work that has been carried out at the Psychopathic Hospital in the form of *Neuro-Syphilis*.

Dr. Oscar J. Raeder, directing a clinical study with the feeble-minded, paying particular attention to the endocrine disturbances.

Dr. Stanley Cobb, Assistant Professor of Neurology, Harvard Medical School, directing a research in microscopic pathology of the brains of epileptics. (Co-operating with the staff of the Monson State Hospital.)

Dr. A. Warren Stearns, Assistant Professor of Neurology at Tufts Medical School, directing a study of the relation of mental diseases and homicide.

Dr. D. A. Thom, Director of the Division of Mental Hygiene, directing the organization of the clinical work throughout the State, which includes the establishing and developing of clinics.

The following projects were selected

after due deliberation as important problems for study. Each person directing a research outlined his program in detail with a carefully worked out estimate as to cost. The salaries of physicians, social workers, psychologists, and clerical assistants, who work under the direction of the person in charge of the research are paid from the budget of the Division of Mental Hygiene.

Development of Clinics: Although Massachusetts has always been well supplied with out-patient clinics, a study of the entire situation through the state shows some points of weakness which are worthy of mention.

1st. There was no provision made for the separating of early mental and psycho-neurotic cases from the psychotic patients out on parole from a state hospital. It is quite obvious that these two types of patients cannot be served in the same clinic at the same time.

2nd. The clinics were frequently held in what was thought undesirable places, such as court rooms, school houses, and other public places which were in no way related to medicine.

3rd. The clinics were not being held more frequently than once a month.

4th. The units which should consist of a physician, a social worker, a psychologist and a stenographer were frequently not complete; the personnel changing from month to month, depending upon whoever was available on the day the clinic was to be held.

In order to obviate the foregoing shortcomings the following general rule was made for the establishment of clinics and three types were designated:

A. For problem cases, such as are referred from social agencies, psycho-

neuroses, and early cases of mental illness.

B. Clinics for patients on parole from State hospitals who need after care and follow up services.

C. Habit clinics of the study of children.

The clinics, wherever and whenever practical, should be held in general hospitals at least once each week. The clinics should not attempt to provide service for institutional and non-institutional cases on the same day. Personnel should be complete and the same units should attend the clinics each week with as few changes in staff as possible. Mental clinics for children of the pre-school age, prior to November, 1921, were not provided for in any State system or privately endowed organizations, but late in 1921 a Habit Clinic was established in connection with the Baby Hygiene Association of Boston. The practical need and therapeutic value of such clinics became evident at once and within the following year two more such clinics were organized within the city of Boston. These three clinics under the Community Health Service are directed by a psychiatrist who is assisted by social workers, a psychologist and stenographer.

The value of the study of mental health of children was demonstrated during the past year, not only from a therapeutic point of view but from the standpoint of research, and there seems but little doubt but what much can be done in eliminating a large group of undesirable habits in children of pre-school age which develop into mental pitfalls in later life. It is the purpose of the Division of Mental Hygiene to

extend the Habit Clinic idea to children so that eventually a chain of such clinics will be organized throughout the State. Already arrangements have been made for the development of three such clinics:

1st. To be started in association with Clark University and the Worcester State Hospital to be held at the Memorial Hospital in Worcester.

2nd. Will be started shortly at the American Dispensary in East Boston.

3rd. Will be opened at the North Bennet Industrial School, a section in the North End of the City of Boston; a section made up very largely of Italians.

It is hoped that the Division of Mental Hygiene will be able to organize within the next year a traveling clinic whose functions would be to serve the smaller towns at perhaps less frequent intervals than the city clinics are now being served at the present time. Four such clinics working in close co-operation with the Department of Education and the Department of Public Health could render invaluable service to the rural communities not only in supplying practical therapeutic assistance but by educating these communities along the lines of mental hygiene.

It is extremely important to bear in mind that the functions of such a Division concerning itself with the mental health of the State must be unusually broad and elastic; not only for the Division itself to have well defined aims and objects to accomplish, but it must always be prepared to enter into close co-operation with other Departments and organizations which have problems to consider relative to the mental health of any particular group.

APPENDIX III
 REPLIES BY STATES, PROVINCES AND TERRITORIES

Province	Action	Organization	Scope of work; appropriation	Voluntary Activities
Manitoba	No			None.
Quebec	No			None.
Ontario	No			National Council for Mental Hygiene—cooperation
British Columbia	Mutual arrangement with Prov. Health Department	Canadian National Committee for Mental Hygiene	Scope: Investigation and study of institutions	Health committees formed in connection with voluntary organizations, cooperate with Provincial Health Department.
Nova Scotia	"	"	"	Nova Scotia Society for Mental Hygiene; educational work, interest in clinic.
New Brunswick	"	"	"	None
Saskatchewan	"	"	"	None
Hawaii	Yes	Regents of U. of Hawaii	Scope: Investigation of nature, causes and treatment and consequences of mental disease and defect; approx. \$15,000	None
Cana. Zone	No			None
Porto Rico	No			None
Alaska	No			None
District of Columbia	No			Voluntary mental hygiene clinics at Gov't hospital for insane, Provincial Hospital, and in connection with a church
Philippine Islands	No			
Alabama	No			Educational campaign by the Alabama Mental Hygiene Ass'n, cooperating with the national organization
Arizona	Yes	National Committee for Mental Hygiene	Scope: An inclusive survey with plans and recommendations for improving mental health. Approx. None.	None
Arkansas	Yes	Commission of 5	Scope: Investigation of conditions and needs of the feeble-minded. Approx. None.	None
California	No			None
Colorado	No			None
Connecticut	Yes	State Dept. of Health	Scope: 1921 budget \$6,000	No answer
Delaware	No			None
Florida	No			None
Georgia				
Hawaii	No			None
Illinois	No			Illinois Society for Mental Hygiene Educational Work; cooperation good
Indiana	Yes	Indiana Committee on Mental Defectives	Scope: To study the problem of mental defectives, what is being done for them, suggested program Approx. \$10,000	
Iowa	No			None

State	Action	Organization	Scope of work; appropriation	Voluntary Activities
Kansas	No			Mental Hygiene Section of Kansas Public Health Association. Cooperation with State Dept. holds sessions at annual school health officers and nurses
Kentucky	No (City of Louisville has clinic)			Voluntary Board of Mental Hygiene established by the State Board of Health
Louisiana	No			None
Maine	No			Mental Hygiene Section of the Maine Public Health Assoc.
Maryland	No answer received			
Massachusetts	Yes	Division of Mental Hygiene in the Dept. of Mental Diseases	Scope: Investigation into causes and prevention of mental disease. Apprx., \$25,000	Mass. Society for Mental Hygiene. Publicity campaign. Hearty cooperation
Michigan	No			None
Minnesota	No answer received			
Mississippi	Yes	Volunteer Com.	Scope: Educational campaign in institution for feeble-minded. Apprx., \$500	None
Missouri	No			None
Montana	Yes	Dept. of Education	Scope: Investigation of number of feeble-minded among school children. Apprx., small	None
Nebraska	Yes	Board of Control	Apprx., \$20,000 Scope: Conduct invest. and study problems of dependent delinquents and defective children	None
Nevada	No			None
New Hampshire	No			None
New Jersey	No			None
New Mexico	Yes	State Bureau of Child Welfare	Scope: Mental hygienist appointed. Apprx., \$4000	None
New York	Yes	State Commission for Mental Defectives	Scope: Clinics, exam. of school children, education of mental defectives in institutions. Apprx., Chairman \$6,000. Members, \$15.00 per day for each day's attendance, not to exceed \$1,000 yr.	State Charities Aid Association
North Carolina	Yes	State Board of Charities and Public Welfare	Scope: Investigation of status and cause of mental defects	None
North Dakota	No			None
Ohio	No			None
Oklahoma	No			None
Oregon	No			Mental Hygiene Soc. in Portland; very little activity
Pennsylvania	Yes	Dept. of Public Welfare, Bureau of Mental Health	Scope: All activities and problems relating to mental defectives. Apprx., \$24,023,450 for 2 yrs., whole dept.	Mental Hygiene Com. of Public Charities Ass'n. Cooperates with Dept. of Public Welfare
Rhode Island	No			Voluntary committee Bd. of Health representative on this committee

State	Action	Organization	Scope of work; appropriation	Voluntary Activities
South Carolina	No answer received			
South Dakota	No			None
Tennessee	No			None
Texas	No			Incidental work in connection with U. of Texas.
Utah	No answer received			
Vermont	No			Children's Aid Society gives mental tests to its charges. Sec'y of State Dept. is a Director of the Society
Virginia	Yes	State Board of Public Welfare.	Appropriation, \$1,000.	Clinic at Medical College. Trial clinic at National Com. of Mental Hygiene
Washington	No			None
West Virginia	Yes	National Com. for Mental Hygiene in cooperation with W. Va. Mental Hygiene Commission	Scope: Survey of mental deficiency with recommendations	None
Wisconsin	Yes	Department of Education	Scope: Exam. of school children. Apprx., \$9,000 for mental experts; \$300 for every mental class established	No volunteer committee; co-operation between Dept's of Education and Health excellent
Wyoming	Yes	Department of Education	Scope: Exam. and instruction of defective children Apprx., 1923-1925, \$25,000	None

APPENDIX IV.

*Analysis of Replies By Provinces,
Territories and States.*Mental Hygiene Questionnaire
for the
State and Provincial Health Author-
ities of North America

Replies received from

7 Provinces.

5 Territories.

42 States.

7 Provinces.

Questions No. 1, 2 and 3.

3 reported NO to questions 1, 2 and 3.

4 reported no order or legislative act,
but a mutual agreement between
the government and the Canadian
National Committee for Mental
Hygiene.*The scope of the work in these 4*cases was an investigation of the
school children, goals, hospitals, and
other institutions.*Funds* supplied by Canadian Associa-
tion for Mental Hygiene.*Question No. 4.*5 Provinces had *no* local voluntary
committees.1 Province mentioned committees
formed in connection with volun-
tary organization.1 Province—Nova Scotia Society for
Mental Hygiene does educational
work.

5 Territories.

Hawaii

Canal Zone.

Alaska.

District of Columbia.

Porto Rico.

Questions No. 1, 2 and 3.

4 reported NONE to questions 1, 2 and 3.

1—Hawaii reported YES: By Regents of the University of Hawaii. Hawaii:—

Scope—Investigation of nature, causes, treatment and consequences of mental defects.

Funds—\$15,000.

Question No. 4.

4 reported NONE.

1 reported YES—3 voluntary mental hygiene clinics in the District of Columbia.

42 States.

Question No. 1.

29 replied NO.

16 replied YES.

Question No. 2.

By whom:

State Department of Health..	1
State Board of Charities and Public Welfare	4
State Bureau of Child Welfare	1
State Department of Education	3
Division of Mental Hygiene....	1
National Committee for Mental Hygiene	2
Special Commission or Committee	4
	—
	16

Question No. 3.

Copies of acts not submitted in many cases.

Scope—12 who answered "yes" defined their scope.

(1) Investigation of condition and needs of the feeble-minded (5 times.)

(2) Investigation of causes and prevention of mental disease (1 time.)

(3) Educational campaign in feeble-minded institutions. (3 times.)

One gave scope (1) and (2); one gave scope (1) and (3); one gave scope (1), (2), and (3), which equals 12.

In scope (1) the investigation was twice limited to school children.

Funds—Ranged from none (voluntary commission) to \$25,000.

3 did not state.

Other replies were:

None (2 cases.)

Small.

500

1,000

4,000

6,000

9,000 and \$300 for every clinic.

10,000

20,000

25,000 for 2 years.

25,000

24,000,000 (2 years) for whole public welfare department.

Question No. 4.

Voluntary mental hygiene committees.

31 reported NONE.

Of the 13 with voluntary committees:

Mental Hygiene Society.. 4 cases

Volunteer work through

Children's Aid 1 case

State Charities 1 case

Voluntary Committee ... 2 cases

Mental Hygiene section

of the State Public

Health Association 2 cases

Mental Hygiene section of

the State Public Char-	
ities Association	1 case
Work through a College	
or University	2 cases
—	—
	13 cases

Cooperation.

- 7 did not mention co-operation with State Health Department. Of these
- 2 did state co-operation with Department of Public Welfare.
- 6 co-operating with State Health Department.

13

2—"good", "hearty".

1—holds a session at the annual school for health officers and nurses.

1—is established by board of health.

1—Board of health represented on the Committee.

1—Board of Health secretary is a director.

—

6

APPENDIX V.

CHAPTER 385-H, F. No. 271.

AN ACT to establish the psychopathic department of the Minnesota General Hospital and to provide for its control and administration and to *appropriate money for its construction, equipment, and support.*

Be it enacted by the Legislature of the State of Minnesota:

Section 1. An institution to be known as the "Psychopathic Department of the Minnesota General Hospital" is hereby established. It shall be erected, equipped, maintained, and

administered for the care, observation, study, and treatment of defective persons as defined in existing statutes, and of such other persons as are afflicted or supposed to be afflicted with any other abnormal mental condition. It may conduct an out-patient service for the diagnosis, care, and treatment of cases less pronounced in type than those thought proper for hospital residence. It may conduct clinics, investigate conditions or conduct educational work in regard to mental disease and mental hygiene in any part of the state. Persons who are addicted to the use of habit forming drugs shall be proper patients for admission to and treatment in the Psychopathic Department.

Sec. 2. The Psychopathic Department in all matters relating to the commitment, custody, guardianship, care and control of defective persons shall be governed by the statutes pertaining to such persons and all powers granted by law to the State Board of Control in regard to such persons shall apply to them in said hospital, subject to the provisions hereinafter contained.

Sec. 3. The Psychopathic Department shall be a part of the Minnesota General Hospital system and under the same organization and administration.

Sec. 4. The Board of Regents of the University shall appoint a medical director of the Psychopathic Department and such other officers and employes as may be necessary for its proper conduct.

Sec. 5. The Medical Director shall supervise and direct the medical care and treatment of all patients in the Psychopathic Department; carry on and direct investigations into the nature, causes, and cure of abnormal

mental conditions; ask for and be entitled to receive the co-operation of all experts in the employ of the University, such as physicians, surgeons, pathologists, psychologists, sociologists, and X-ray specialists; seek to bring about systematic co-operation between the Psychopathic Department and all state institutions under the jurisdiction of the Board of Control so far as these institutions may have in their custody defective persons or persons afflicted or supposed to be afflicted with any other abnormal mental condition; visit, from time to time, said institutions upon request of the respective superintendents thereof or upon request of the Board of Control; and may advise the medical officers of such institutions or the Board of Control or any court, on request in subjects relating to abnormal mental conditions.

Sec. 6. Any defective person may be sent to, committed to, or received by the Psychopathic Department in the same manner and form and for the same causes as such person would be sent to, committed to, or received by any institution under the State Board of Control. It shall be in the discretion of any court acting in accordance with existing statute or in the discretion of the State Board of Control to send any person to the Psychopathic Department instead of some other institution to which such person would be sent under existing statute. The Psychopathic Department is designated as a place of temporary detention to which under existing statutes any probate judge may send defective persons for temporary detention. The State Board of Control shall have authority to transfer any patient or inmate from any institu-

tion under its control to the Psychopathic Department for observation and treatment or for medical and surgical care and treatment under the staff of the Minnesota General Hospital.

Persons not defective but who are afflicted or supposed to be afflicted with any abnormal mental condition may be admitted to the Psychopathic Department under such rules as the Board of Regents may adopt.

Provided in every case that the consent of the superintendent of the Minnesota General Hospital, shall be obtained before any patient is sent to, transferred to or received by the Psychopathic Department.

Sec. 7. Whenever, in the judgment of the superintendent of the Minnesota General Hospital, any defective in the Psychopathic Department should be discharged from said hospital, said superintendent shall inform the State Board of Control, which shall immediately order the patient to be sent to the proper institution for such patient. The Medical Director of the Psychopathic Department shall furnish the institution to which a patient is transferred, or the State Board of Control on request or the proper court on request, with full information and advice concerning such patient. The expense of transferring patients for study and treatment to and from the Psychopathic Department shall be a proper charge upon the counties as under existing statutes or upon institutions under the State Board of Control from which or to which patients may be removed, under such rules as the State Board of Control may prescribe. The expense of transferring patients for study and research purposes shall be a proper

charge upon the Psychopathic Department under such rules as the Board of Regents may prescribe. The Superintendent of the Minnesota General Hospital may discharge any voluntary patient in the Psychopathic Department or may take steps to secure commitment and transfer of such a patient whenever in the judgment of said superintendent such patient should be discharged from the said Psychopathic Department.

Sec. 8. There is hereby appropriated from any funds not otherwise appropriated the sum of \$15,000 for the support and current expense of the Psychopathic Department for the biennium ending June 30, 1925.

Sec. 9. This act shall be effective immediately following its approval.

Approved April 19, 1923.

DISCUSSION

The President: In opening this matter for discussion I want to make an announcement. I think all the states are indebted to Massachusetts constantly for methods of procedure and particularly for calling our attention so effectively to the least better of two ways for accomplishing our ends. I believe when you take what Dr. Welch said yesterday in connection with the facts submitted by many other members of the conference we must realize the most important thing we have to do in our several states is to avoid multiplication of agencies. In Massachusetts that cannot be avoided because of the peculiar sort of formation of its population. When a new movement comes on a new organization is created and as Dr. Kelley has said they accomplish the results accomplished in other states by direction or what he very excellently termed "putting it through by a multiplication of agencies" that the rest of us can avoid very largely by setting them up as an example of that. We can hope to aid the consultants of our staff to develop in the agency that is going to work in the county, a definite mental hygiene program insofar as they are able to do it by the addition of one member to the staff in the richer coun-

ties and the public health agencies of the various states should assume that function as promptly as possible because if they fail to do it—its importance is being so emphasized—it will be done by some other agency and we will have a conflict to determine which of the two agencies is going to control. This is not the case in Massachusetts but it will be in many other states. They have a way of co-operating up there I have not found in any other civilization I have been acquainted with.

Dr. A. J. Chesley, Minnesota: Minnesota is one of the states that did not report on venereal diseases. April, 1923, our legislature passed this bill. You cannot class the legislature as one of the voluntary agencies promoting this movement. This bill has been so amended that no one who had anything to do with it in the beginning could recognize it now. The legislature adjourned April 20, the bill went to the governor to be signed and was printed last Tuesday. So I ask the gentleman that justice be tempered with mercy. He said that after the conference he would take my bill, in the meantime he would not even take an excuse. This bill provides for nearly everything he asked about including an appropriation of \$15,000. We asked for a hospital. We did not get it. We did get the enabling act. We have established a psychopathic department in the Minnesota General Hospital, which is our University Hospital, and in a way has control over institutions throughout the state. Adequate description is given in this bill of the composition of the body, appointed to do this work, of the scope of its work and its relation to other state departments. While the State Board of Health has no official hand in this program it is a silent partner in the consulting work relating to institutional control. I respectfully submit this copy of the Minnesota law to Dr. Kelley.

Dr. C. A. Harper, Wisconsin: I want to say that Dr. Kelley's report that only one state board of health has a bureau of mental hygiene under its jurisdiction, shows perhaps that all of us as public health men have been negligent in promoting this proposition, which probably concerns the people of the United States more than any other single measure. In order to get some facts to present to the legislature, we had a sur-

vey made in the state of Wisconsin. Some of these figures may prove interesting. It is to be understood that this general survey takes in the whole scope of mental deficiency. Forty-five per cent of the inmates in the state prison are repeaters; of this 45 per cent 91 per cent are abnormal. The State Psychiatric Institute with trained men, made examination of the state institutions. Seventeen per cent of the inmates of the county jail and 27 per cent of the inmates of the Milwaukee House of Correction are repeaters. Of the repeaters anywhere from 85 to 90 per cent are mentally defective. In order to bring constructive material to the members of our legislature we took up the expense of housing state charges. Forty years ago the state institutions cost \$200,000 to maintain. July, 1921, the cost had gone from \$200,000 per year to \$3,501,712. In addition to this county institutions paid somewhere about \$7,598,921 per year to take care of the inadequates, a large percentage of whom were mentally defective. In other words the total cost to the state of Wisconsin is something like \$11,100,633 to take care of its dependents. The cost of running the general government is \$7,460,276. Apparently, therefore, the cost of the inadequates was \$3,500,000 more than was the cost of running the government of the state. A comparison of the total cost of the state for the same period to run the university and normal schools, the university having 7,500 students and nine normal schools, it was found that the cost and the care of the state's inadequates was \$641,212 more than it cost to maintain all of our state institutions. The budget asked by the State Board of Control for institutional care of the state's charges for the next biennium amounts to about \$11,000,000. If we continue in Wisconsin, and I think other states will go neck to neck with us, the next forty years as we have gone in the past, the appropriations necessary to maintain the state's inadequates, a large percentage of whom are mentally defective, will be about \$35,000,000, a burden that will become so great that it will be difficult for any ordinary state to carry. We find also as near as we can estimate that the normally mental people have 3.4 children per family, while the sub-normal have 4.4. The figures of our state institution for dependent

and neglected children show that during the period of thirty years 5,583 babies or little children have passed through the institution. This institution has been conducted like many institutions throughout the United States for purposes of this character. The tendency is to have the children in the institution for the dependents adopted by various families in the state. The physician at the head of this institution, a careful and efficient man, believes that only about 9 per cent of these children are really fit or standardized type of children. What does this mean? It means really that the state is in the business of raising mental defectives. They are let out to families and inspected once or twice a year for the purpose of determining whether they are well treated in their new homes. When this class of children become 21 years of age they are independent citizens of the state and are privileged to marry, many of whom produce offspring of their type.

I certainly would like to see the expenses of each state for taking care of their inadequates classified, as a measure for bringing certain facts to the attention of the citizenship, and a valuable aid in impressing legislators with the problem that confronts us.

The President: Unless there is an objection, the Committee will be asked to complete this investigation and include it in the next annual report.

AFTERNOON SESSION

SHEPPARD-TOWNER SYMPOSIUM

By DR. ANNA RUDE,

*Director of Maternal and Infant Hygiene, Children's Bureau,
U. S. Dept. of Labor.*

I am extremely grateful to you for the opportunity to present to you in person your first annual report on the activities under the Maternity and Infancy Act. I recall it was just a year ago this month that I came before you for the first time with great trepidation and I wish to confess that I appear this year with far more courage

and am far less intimidated because I think that after having survived the past year that probably we have now something of the spirit of comradeship, having been fellow-sufferers under this Maternity and Infancy Act. I note that most of the state health officers have survived.

Most of you know that during the first year 42 states were co-operating under the Maternity Act and that out of the 42 states only 13 were legislative acceptances, which meant that 29 were waiting the meetings of their legislatures this year. It has been particularly interesting to watch legislative progress. The bachelor governor of Maine as you know, feared this measure as paternalistic and did not accept, although he set aside \$5,000 for the work; and this year even though the acceptance act passed both houses of the legislature, he vetoed it.

Massachusetts as you know, did not wish to co-operate last year and even decided to test the constitutionality of the federal act. Rhode Island did not co-operate last year nor again this year. Louisiana was another state which did not co-operate last year—the midwives were given credit for its legislative failure in that state since in Louisiana 50% of the births are confined by colored midwives who believed that acceptance of the act would put the midwives out of business. If Louisiana could have observed what Mississippi has done by way of training the midwives, the Louisiana legislature would surely have accepted. At the present, legislation is still pending in three states, Pennsylvania, Illinois and Florida. There have been two legislatures this year who have not upheld their governors' acceptances of last year—

Kansas and Vermont. Kansas is hardly in the same class with Vermont inasmuch as the Act came before the Senate only in Kansas, and for some reason was not brought up for consideration by the House. At the present time, there are 39 legislative acceptances and legislation is still pending in three states.

Most of you know that during the year there have been two cases testing the constitutionality of the federal Act—one before the District of Columbia Court and one before the Federal Supreme Court. The case before the District Court was appealed to the Court of Appeals, both decisions being favorable for the Government. Then the two cases—that is the case testing the constitutionality which was filed by Massachusetts and the District case were argued together on the 4th and 5th of May. I did not hear the argument but I understand that the Supreme Bench was much interested and particularly sympathetic when during the argument it was discovered that Massachusetts was really appealing to the Supreme Court for protection from the Children's Bureau! You may be interested in knowing that the States arose to the defense of the Act. There were five briefs filed for the defense, one of course by the U. S. Attorney General for the Government; Kentucky prepared a brief which was signed by some eight other states all having had legislative acceptances during the previous year. Oregon filed a separate brief, Pennsylvania even though it signed Kentucky's brief filed a supplemental brief and then there was a brief for the Land Grant Colleges, which as most of you know, have been operating

in this country under a similar type of legislation since 1862.

In view of the fact that there is still more or less unfavorable publicity and opposition to this measure, I am going to tell you what has been done with the \$50,000, the maximum amount allowed annually under the provisions of the Act for the Federal administration. Within the past week I read that all the appropriation for this Act would do, would be to provide large salaries—you know the maximum annual federal appropriation is \$1,240,000—for a misguided sentimental movement and create a vast army of undirected and untrained women, which would cause a great deal of trouble in your states.

During the past year we have had a staff of six, a director, an assistant director, an accountant, a secretary, a public health nurse and a stenographer. All but two of the co-operating states have been visited and we intend to visit the other two very soon. In many instances it has been possible to go out and remain long enough in the state to see special phases of rural work with the hope we might be more understandingly helpful. We have had one public health nurse whose services have been offered to the states to conduct institutes in maternal and infant hygiene for the public health nurses thus somewhat standardizing the work. This nurse has conducted institutes in fourteen states and ten more are scheduled during the summer months. We have had one accountant and she has checked the accounts of nearly all of the states, the rest of them will be checked by the first of June. I am sure that many of you have found your financial

reporting and accounting the greatest irritation you have had to contend with. We of course thought in the Bureau that it would be very simple to just accept whatever accounting method you were using in your state and that whatever system was good enough for state accounting would be for Federal accounting. We tried to put out what we considered were the minimum of requirements, but one thing we have learned during the past year is that there are at least 42 methods of keeping accounts, and I can only say that I am doubly thankful it is not possible to have 57 varieties! In addition to the staff we have spent part of the money for additional printing. There has been an unprecedented demand for our bulletins "Infant Care" and "Prenatal Care". We have put out two leaflets, one, The Public Health Nurse in Relation to the Sheppard-Towner Act and one, The Minimum Standards of Prenatal Care.

We have under way three pieces of research. We have already discovered that few states define what they consider Maternity Homes to be and a still larger number do not even know how many there are. At present the study is being conducted in co-operation with the State of Pennsylvania and they have already discovered that there are 48 such institutions, within its borders, and no standards whatever for medical and nursing care. One other study being worked out in co-operation with one of the State Health Departments is a plan for securing statistics on maternity and prenatal mortality, in a large number of cities. Most of us are tired having to quote over and over again what New York City has done. Also in co-operation

with one of the medical schools, connected with a state university, a piece of research is under way on the subject of stillbirths. In this country we have practically no literature on this subject and I hope that the results of this piece of research will be a very definite contribution. Out of the balance of the \$50,000 we will produce a prenatal film for which there seems to be a very great demand from the states. The film will be made in co-operation with a number of leading obstetricians of the country and I hope that it will come up to your expectations. I think I may console you in saying "that the worst is over" as far as this Maternity Act is concerned. Getting the machinery started is the most difficult part of the job, and I am certain that you will find in the succeeding years that the work which is now started will progress much more rapidly and go along much more easily. However, one thing I do wish to emphasize is that not in all of the states has the idea of just what a maternity and infancy program is, been sold as yet. It still seems difficult for some states to comprehend that there is any real reason for shifting the emphasis in health work from the school period, to the earlier period of life. During the year we sent you another publication, which probably most of you have not read, which shows that during the pre-school age the number of defects increase with age from two to seven years and that there are twice as many defects after two years of age as before. Such facts need no further elucidation as to why preventive work should begin in the earlier periods of life.

You have behind this Maternity and Infancy work a public opinion such as probably you have never had behind any public health activity which you have undertaken before, and that is, of course, the co-operation and interest which you have in the women's organizations of the country. The women do feel that they are responsible in that this is peculiarly a woman's measure and they are anxious to help. A number of the states have been astute in seeing this and in making definite plans so as to give the woman something to do. Women do want to help but they also need to be guided and directed. Many of the state maternity programs, the ones which I should say are fundamentally sound, are those which have gone to the medical profession with the state program. There are states in which no work has been undertaken until the local medical society wishes to co-operate. Wherever this has been done, there is co-operation and not opposition once the program is understood. Taking the country as a whole, I can say to you as one thinks in terms of 42 states, one fairly gasps at the number of activities that have already been initiated during the past year. State activities have far more than exceeded expectations, and I think that I am not making an exaggerated statement or being too optimistic, when I say the Federal Maternity and Infancy Act has already been a success because it has stimulated all of the states, even Massachusetts, to very seriously consider the need for beginning preventive work at the source of life. After this year's experience we all know that it makes very little difference what happens in Washington

since the real success of the measure depends on what you do in your individual states.

THE TREND OF MATERNAL AND CHILD HYGIENE

WALTER H. BROWN, M. D.,

Director of Child Health Demonstration, Mansfield, Ohio.

I am going to specifically discuss the maternity and infancy bill, but anyone who has passed through the stages of being a country doctor, health official and is now engaged in the field of so-called voluntary agencies as I have, could take stock of some of the trends in public health work that have a particular bearing on the discussion underway. I want to first take up with you the present interest in child hygiene.

Present Interest in Child Hygiene.

—This is indeed the age of the child. The rapid growth of the maternal and child hygiene movement is one of the most striking developments in the public health field. The sagacious health officer will have long ere this interpreted its significance, and laid his plans to make them contribute to the general advancement of public health.

The evidence of the widespread interest in maternal and child hygiene is met at every turn. It has expressed itself in the official health field by the establishment of divisions of child hygiene, infant welfare stations and additional public health nursing service. The public has become so well informed as to the character of the problem that organized efforts have resulted in the passage of the Sheppard-Towner Act—which we are discussing this afternoon.

In the field of the unofficial health agencies the development is equally striking. After working separately for many years six national organizations interested in child health formed the National Child Health Council. Out of this has come the amalgamation of two of the most prominent organizations into the new American Child Health Association. This organization has attracted to its leadership Secretary Herbert Hoover, who is turning his energies and experience from the American Relief Association to the child health field in America. This association will bring to the child hygiene movement greatly increased financial and social support. The policies upon which it is to be conducted are in keeping with the objectives of the public health officials of the country. One of the examples of the practical activities of the Association is the Child Health Demonstrations, which it is conducting in co-operation with the Commonwealth Fund.

The amount of public interest in a subject is not always a safe guide as to its relative importance in the public health field. Therefore the wise health official will give careful consideration to the unusual development of maternal and child hygiene in order that he may give sufficient emphasis to it in his program.

The education officials of our country are also intensely interested in this subject. One can scarcely attend a meeting of educators in which the subject of the health of children is not given a prominent place on the program. Courses in health education are being established in many of the teacher training institutions of the country. Health is rapidly becoming

an important subject in the school curriculum.

Relative Importance of Problem.—An examination of the relative importance of the problems of maternal and child hygiene will be of practical interest. The public health administrator must consider both the quantitative and qualitative importance of various activities in planning his expenditures of funds.

The problem of maternal and child morbidity and mortality is quantitatively of great importance. There were 18,000 maternal deaths in 1921, or to state it in another way for every 10,000 live births there were 68 mothers who died. These rates compare unfavorably with many other countries. Among our children under 5 years of age, we had a mortality of 248.432 (1920). These figures indicate a justifiable interest in maternal and child hygiene merely on a numerical basis.

The qualitative importance of proper standards of maternal and child hygiene is recognized by every thoughtful public health worker. There can be no doubt that if we were able to attack the problem of racial building at the source of life, many of our other pressing public health problems would either be automatically solved or decreased markedly in their importance.

While the speaker realizes the importance of child health in the field of preventive medicine, he also recognizes the fact that it is but a part of the whole. One of the purposes of this paper is to stimulate the public health official to carefully analyze the facts in order that he may give due emphasis to it in his program.

Needs of the Field.—Public health administration has passed through several distinct stages. We first spent most of our time in the suppression of diseases. Dissatisfied with our success, we developed methods of prevention. Now, we are rapidly passing into a positive attack on disease by means of health promotion.

The public health official has found it necessary to gradually widen the scope of his activities. He has ever sought to find the fundamentals in the solution of any particular problem. It is not the intention of the speaker to discuss detailed methods. He should like to draw your attention to what he considers some essentials for an adequate maternal and child hygiene program.

The success of any public health procedure depends largely on sound organization—with sufficient powers and personnel. A properly organized division of Child Hygiene in a State Department of Health can stimulate the local community and will tap the resources in the national field. This seems to me to be one of the ways in which the Sheppard-Towner appropriations will be most effective. It is my understanding that the Administrative Board desires to assist the States in establishing sound administrative machinery for the protection of maternity and infancy.

Improved medical and nursing service is absolutely essential, if we are to further reduce maternal and child mortality. This applies both to the amount and quality of the service. Everyone here is familiar with unequal distribution of physicians which has resulted in many un-doctored communities in our country. This is a sub-

ject which deserves separate discussion.

The quality of our medical and nursing service is of even greater importance. When we consider the fact that of the 18,000 maternal deaths, 60% of them were due to septicemia, we realize the gravity of the situation. This gravity is increased, if we reflect further on the kind of medical care which is received by the average infant or child. This is not a denunciation of the medical profession—it is a plain statement of fact. The correction of these conditions is of mutual interest to the medical profession and the public health worker.

Publicity and Education—The facilities for suitable publicity and education are of vital importance. The objective of our publicity should be to build up an informed public opinion which will support a well rounded program of child hygiene. This program must contain ample provision for the education of the individual. Our educational matter must be of proper character and our personnel must understand the principles of teaching. Too often we mistake public health information for education.

Future Developments.—A commendable amount of progress has been made in recent years in the field of maternal and child hygiene. The future developments will be dependent upon the securing of the above mentioned essentials—plus the establishment of proper relationship between three distinct groups. I refer to the

- (a) public health group.
- (b) medical group.
- (c) voluntary health organizations.

Each one of these groups has a def-

inite part to perform and is charged with a particular responsibility.

The public health group has the greatest responsibility and the greatest opportunity. They should furnish constructive leadership for the child hygiene movement. Such leadership is needed to wisely guide the rapidly increasing enthusiasm for this type of work. The problem of satisfactory medical relationships is no simple matter. To enlist the active co-operation of all the agencies in the field is a task for a public health statesman.

The ultimate success of any child hygiene program will depend upon proper medical relations. The time has arrived for the medical profession to actively participate in the public health movement. In order to bring this about, the public health group should make a concerted effort to convince the physician of their mutual interests.

The medical group must prepare themselves to meet the demands for preventive service which will come from educated public opinion. Fortunately some of the medical leaders are alive to this necessity. In Mansfield, we have a small group of progressive physicians who are actively at work along this line. Further it is the responsibility of the medical group to assist in raising the standards of obstetrical practice and the medical care of children.

The voluntary health organizations are at once the scouts and the reserves of the public health army. One of their big functions is the exploration of little known fields. With their freedom of action, they can make these explorations, when the official agency is limited either by funds or public sentiment. An-

other important function is to support and supplement the official agency. Only too frequently the public health official fails to tap the resources which this group can make available.

We are on the upward trend in the child hygiene movement. The widespread interest in this case coincides with a relatively important problem in the public health field. In the course of our discussion, we have pointed out certain essentials for the solution of the problem. We have indicated certain resources which are available for the health officials. The outcome of this movement is of vital importance to our country. Its success depends upon alliance between the public health officials, the physician and the voluntary health agencies.

I believe the thinking public health official of today is the balance wheel and he should continue to be that wheel; also the amount of public interest in any given question is not always the guiding factor of the amount of money to be put into that field. I might also say there is another group who are intensely interested in child hygiene, namely, your educational group. In the public health field today we have many opportunities to use educational groups as a definite part of the thing we are doing. I think those of us who have struggled to extract budgets from the unwilling governing bodies and then have attempted to plan programs and make them function, do not have the time nor the inclination to attempt to place on fundamental lines the things we are doing. While I am working in child health activities, I am interested and believe we will go farther if the first step is sound fundamental general health organization which is in turn

capable of expansion for covering the entire field. The needs of the field I will not touch upon, but I think there are a few fundamentals to which I should like to call your attention. Those of us who have gone through the State Departments of health and been out into the actual field all know what it means to carry over into a community, to the ultimate consumer, the things that the head of the national organization or the head of the state department of health really mean to have happen; but only insofar as we are really able to stimulate the local community from within shall we meet this problem, however slow it may be.

NEW YORK'S PLAN FOR MATERNITY, INFANCY AND CHILD HYGIENE.

DR. FLORENCE MCKAY,
*Director, Division of Child Hygiene,
New York State Department
of Health.*

When I was asked to appear before you to present our plans it was on the grounds that I was to represent a state that was not acting under the Sheppard-Towner Law. As you probably know New York State repudiated the Sheppard-Towner law and passed its own law, the Davenport-Moore Law which appropriated the same amount of money as would have been available under Federal Aid. For the past year, New York like a black sheep, has been going about and sowing its wild oats, but last week at the very last session of the legislature the Sheppard-Towner Act was accepted by New York State, so that the sheep has come back to the shepherd. The Governor has not yet signed this act

so perhaps the sheep is not yet in the fold but well on the way toward the fold. I brought with me our organization chart which is more or less tentative but which perhaps will help in showing how we are working under this appropriation. Of course our fundamental policy is that of education. We are planning our work on the basis of offering co-operation to the local community by giving them actual assistance and by stimulating them to do the work under their own facilities, and give them assistance wherever needed.

For the past year the Division of Maternity, Infancy and Child Hygiene in New York State, has been working under the Davenport-Moore Law. This provides an appropriation totalling \$160,000, an amount equal to that available had the Federal Sheppard-Towner Act been accepted last year and of course directly stimulated by the propaganda for the acceptance of the Federal measure. On May 4th, 1923 the Federal Sheppard-Towner Law was accepted by New York State.

The organization plan of the division which conducts this work, based on the usual fundamental policy of education in public health, aims to conduct the work by stimulation of local communities to organize and extend maternity and child health work and by giving service to communities to assist them in their local activities. Previous to 1922 a limited amount of child hygiene work was conducted by this division, such as the licensing and supervision of midwives; the conduct of children's health consultations; orthopedic clinics or aftercare of poliomyelitis; the supervision of child caring institutions and the usual educational

measures through publicity by means of literature, exhibits, lectures, films, etc. Under the new organization these activities have continued and in nearly all cases have been extended.

Since July 1, 1922, several new types of work have been inaugurated. As all of these newer activities are still less than a year old and many of them have been established less than three months, it is far too soon to give actual results, or even to state that the methods of work are the best which can be devised.

In many cases various methods have been tried. In the description of the work which follows the methods now in use will be given.

Regional Consultants—Relation of the division to the medical profession. One of the first undertakings of the division was an attempt to secure the co-operation of the medical profession of the state, realizing that only by such co-operation could success in this work be attained. To this end Regional Consultants over areas of 5 to 10 counties were appointed. These are physicians of high standing and recognized authority in their own community, whose practices are limited to obstetrics and pediatrics. They are asked to serve the state by meeting with medical societies and communicating to them the policy of our work; by improving standards in obstetrics and pediatrics throughout the state; by acting as consultants in cases of need and especially by advising the Division of Maternity, Infancy and Child Hygiene as to methods of meeting various problems.

There are 18 such consultants; they have met with 39 medical societies and 6 lay societies. There have recently been held two clinics in pediatrics at

the request of county medical societies. The entire initiative was taken by the county medical society, our division furnishing only the Regional Consultant to conduct the clinic. These have met with encouraging success and requests for a series of clinics have been received. It is hoped that through the Medical Society of the State of New York a plan may be adopted by which this may be made available to any medical society in the state, the initiative coming always from the state medical society or the local medical society.

In addition our consultants in obstetrics have devised a set of minimum standards for maternity care which are now in print and are soon to be distributed to the physicians of the state.

Demonstration Nursing Service—This was started in July, 1922. The services of a nurse are given to a community, the state paying the nurse's salary and maintenance. The community is asked to furnish co-operation and transportation and to assure us of their intention of carrying on the work after the demonstration has been completed. The demonstration nursing service may last for a period of from two weeks to six months during which period the nurse organizes maternity, infant or preschool work or all three types in a community, under the direction of the State Department. This service is given to communities aggregating 5,000 population or more.

On July 1st a county-wide child hygiene demonstration nursing service was inaugurated in one of the counties in the state. At the end of the demonstration, lasting four months, the board of supervisors of the county appropriated salaries for two county child

hygiene nurses and for cars for their transportation. To date this demonstration service has been given in five cities and one county. Within the next two months, as fast as we can secure properly qualified nurses, work will be started in six other counties. Two additional counties now have the matter under consideration. The Milbank demonstration has requested two demonstration nurses for Cattaraugus County. In each case where the demonstration nursing service has been given, funds have been provided for the continuation of the work except in one city where it was possible to reorganize the existing nursing service in order to include the maternity hygiene work which was established.

Organization Service—Through an organizing field agent communities who desire this service are stimulated and organized for the establishment of maternity and child hygiene activities. The organizing field agent gets into personal touch with members of the community who are influential and particularly interested in public health and secures their assistance in backing the work in the community. She guides them in forming their committees and in the general conduct of the campaign which is inaugurated. This service has been given to four counties.

Consultant Nursing Service—In New York State there are 116 child hygiene stations. These have for some time been reporting to the Division of Maternity, Infancy and Child Hygiene. We are now giving them a consultant nursing service. Two nurses, each assigned to one half the state, visit the child hygiene stations giving supervision and advice to the nurses in the station and helping them to organize new

activities, particularly maternity hygiene or to extend activities already organized. They keep the nurses in touch with new methods, literature, films, slides, etc. and in some cases secure from them valuable information concerning methods of work which they have found successful.

These nurses are also available to communities where no child hygiene activities have been established and where it is desired to start a child hygiene station. In such cases they spend as much time as necessary in the community assisting the local public health authorities in starting the work.

Prenatal Consultations—Our first concern was to devise a method by which the many mothers in the state who had no prenatal care could be reached. After trying out one or two other methods the present plan was adopted and our obstetrician and nurse started prenatal consultations the last of September. These are held at four week intervals. The patients reached are those who have engaged no medical attendant for confinement. This includes, of course, largely, the patients of midwives and the consultations are held chiefly in towns where the midwives are more numerous. No patient of a physician is accepted except upon written request of the physician. The patients are reached not only through midwives but through social service, religious and other similar organizations. Those who have made no provision for an attendant at birth are advised to go to a physician. A complete physical and obstetrical examination, excepting internal, is made of the patient. Instruction in maternity hygiene is given by physician and

nurses. Any defects which are found are referred to a physician for correction. No treatment whatever is given at the consultations. The follow-up work is done by the local nurses. The consultations are held only at the request of the local Health Officer and Sanitary Supervisor.

During the first six months 36 consultations were held in 9 communities; 152 new patients were examined and there were 33 re-examinations. Of the births reported 43 were normal and 10 were abnormalities; 401 obstetric defects were found and 503 other defects. During March and April additional prenatal consultations have been started in 7 localities. As soon as possible communities take over these consultations using their own facilities. In cases where desired the consultation unit goes into a locality for a single demonstration consultation.

Surveys and Studies—When the additional work of this division was started a request was made for material on the distribution of maternal deaths in New York. The Division of Vital Statistics has recently published a monograph on the Geological Distribution of Maternal Mortality and Stillbirths in New York state which gives us valuable information concerning the existing conditions with which we have to work. With the knowledge before us of the numbers of puerperal deaths it was found that very little was known concerning the contributing causes. A questionnaire study is therefore being conducted. To each physician in whose practice occurs a puerperal death, a list of questions is sent which is so devised as to secure further information concerning each individual death. So far about 50% of the questionnaires are

returned leaving a large number concerning which no information is available. Study of the questionnaires which have been returned is not yet completed. In one city where the infant and maternal mortality rates were unusually high the Health Officer requested the division to make a survey of conditions and recommend methods for reducing the high rates. The survey has just been completed and the report is now going out.

A request for a similar survey in the city with the highest infant mortality rate has since been received and a survey was started in this city on May 1st. In another town with high infant mortality rate a similar survey is also being conducted.

In addition the demonstration nurses make a limited survey of each community into which they go and the staff of the children's health consultations send in a report of the facilities available in each town where the consultations are held.

Co-operation with Organizations—Plans for co-operation with local organizations have been made and many of the state-wide women's organizations and also some of the health organizations are now working with us in the furthering of our program. The health organizations are interested particularly in the demonstration nursing service. To the women's organizations are given five projects by which they can co-operate in this work. These projects are the formation of mothers' health clubs; the conduct of child hygiene study classes; the provision of household help at the time of confinement; the maintenance of a loan closet and providing funds for nursing service. How many of these projects have been start-

ed we are unable to say as unfortunately not all of the organizations report to us the projects which they adopt.

Extension Course for Nurses—In starting our campaign for the education of mothers the fact was brought out that there were very few public health nurses in the field who had had special training in teaching maternity hygiene to mothers. A plan was, therefore, devised to give to as many nurses in the state as possible a course of lectures and demonstrations in order to fit them to teach mothers' health clubs. Through these clubs maternity, infant and child hygiene is taught to mothers. An instructor of nurses was secured who started the work in August. Classes were formed in 16 different communities and nurses from the surrounding areas came into the chosen town at monthly intervals for a two hour lecture and demonstration. This course for which 333 nurses registered was completed in April. The demand has been so great that it was necessary to repeat the course and a second round of classes was started April 30 with a membership of 247.

The course comprises eight lectures with demonstrations which are given in accordance with the following general outline:

1. General problems of maternal and infant mortality in nation and state. Factors in reduction.
2. Physiology and hygiene of pregnancy.
3. Discomforts and abnormalities of pregnancy.
4. Full prenatal visits.
5. Preparation for delivery.
6. Aftercare of mother and baby. Breast feeding.

7. Mothers' Clubs.

Examinations—written.

8. (A talk on Nutrition or Diet in Pregnancy, by the Nutritionist of the Division, is also included, which makes 8 class periods.)

Demonstrations:

Layettes and patterns.

Breast tray; care of nipples.

Abdominal binder.

Shoulder garters.

Baby's tray.

Preparation of delivery bed.

Preparation of baby's bed.

Baby's bath.

Taking the blood pressure.

Urinalysis.

Nutrition Service—The services of a nutritionist were secured for the purpose of extending education in nutrition work and in organizing nutrition activities. She has given lectures to nurses, housewives, women's organizations, college students, Red Cross societies, men's clubs; has given assistance in planning dietaries for child-caring institutions; has supervised members of the staff needing special nutritional attention; has helped to organize nutrition work in connection with child hygiene stations; has given a series of radio talks on nutrition and has conducted a nutrition correspondence service.

Investigation of Puerperal Sepsis and Ophthalmia Neonatorum—have recently been delegated to this division. Such investigations as are now made are conducted by the supervising nurses in the sanitary districts.

Breast Feeding Demonstration—A breast feeding campaign was inaugurated in 1921 before additional funds

were available to the division by sending out to all health officers and public health nurses in the state the Children's Bureau Bulletin on Breast Feeding.

On January 1st, 1922, a breast feeding demonstration was started on Long Island. This is being conducted for the purpose of determining whether breast feeding can be made universal in a rural community; and of establishing methods for breast feeding demonstrations which may be used in other parts of the state. The demonstration is conducted on plans similar to that of the Minneapolis demonstration.

Because of transportation difficulties Suffolk County mothers are being reached only by mail.

Nassau County was taken as a unit for this work where intensive work is being carried on. In Nassau County each mother is reached through visits by nurses with, of course, the full knowledge and consent of her physician. Up to May 1st the percentage of breast feeding for the cases visited was 93%.

Miscellaneous Activities—In addition literature has been revised; new literature has been written; standards for child hygiene stations have been formed; outlines for teaching Mothers' Health Clubs have been prepared; work has been done on the production of prenatal films; and exhibits or layettes and mothers' and babies' trays have been prepared and sent out to organizations desiring them. The entire office administration has been re-organized and various new forms, filing systems, etc. established. More adequate office space and equipment has been secured.

MISSISSIPPI'S STATE PLAN FOR
MATERNITY AND INFANCY
HYGIENE

By DR. UNDERWOOD,
*Director Child Hygiene Division,
Mississippi State Board of Health.*

I wish that I had been able to have listened in at this meeting without being asked to speak. I have enjoyed the discussions very much and feel that some points that were not altogether clear to me have been clarified.

For a long time we have heard in song and story that mothers of the race are the most important individuals of society and that the future race absolutely depends upon them. We have treated this as we some times treat a far fetched theory, but in practice we fall far short of our theoretical ideals.

In Mississippi as well as many other states of this America of ours, the health of the mothers has been too long neglected.

As a practitioner of medicine, in doing obstetric practice the neglected gynecologies made a lasting impression. Many women came under my observation, who had entrusted themselves to the physician's care and not the midwife in former labors, with complete perineal tears, and if we frequently see neglect like this in mothers who had been delivered by physicians, what in heaven's name may we expect to find in mothers delivered by untrained midwives.

Mississippi from the Governor down to the humblest citizen appreciates the Federal aid given the state through the provision of the Sheppard-Towner Act. Putting this act into effect in Mississippi meant the dawn of a brighter day

for the mothers and infants of the State.

We have heard that the Federal Bureau which has a tremendous responsibility in administering the provisions of the act, has been very exacting with a tendency to interfere somewhat with the State's rights. Speaking for Mississippi I may state that we have carefully planned our program and budget for the state and submitted them to the Children's Bureau and they have been accepted without alterations. The Federal Board has shown no disposition to interfere, but on the other hand has been most liberal, helpful and sympathetic with our shortcomings, all of which we appreciate very much and to which we gladly give testimony here, and in the light of Mississippi's experience it is my personal opinion that when these misunderstandings are cleared up it will be found that it is not the fault of those directing the work of the Children's Bureau.

The Maternal death rate has shown no improvement since 1900.

The dominant cause of maternal deaths is puerperal septicemia which is known to be largely preventable. This indicates that modern knowledge of the causes and prevention of infection as successfully applied to surgical practice has not been so effectively used in obstetric practice. The fact that approximately one hundred and forty thousand infants die annually in the United States before attaining three months of age, together with the failure to decrease the maternal mortality, further emphasizes the need for public health work in maternal and infant hygiene. This work, must of necessity, be based upon an educational program. The division of maternal and infant hygiene

has been legalized by legislative enactment and the work has been organized upon an efficient basis.

The program which has been arranged for this work is as follows:

1—To supervise and direct special nurses in the field, whose duties are to be as follows:

a—Investigate, instruct, issue permits and further supervise midwives with the co-operation of the county health officer.

b—Lectures and demonstrations to groups of mothers and other interested individuals.

c—Supervisory care of women during prenatal, natal and lying-in period.

d—Instructions with reference to care and feeding of infants and preschool children.

e—Organization of local committees.

2—What we hope to accomplish:

a—Decrease the number of cases of Ophthalmia neonatorum, blindness, maternal invalidism, infant and maternal deaths due to ignorance, carelessness and neglect before, during and after childbirth.

b—more complete birth registration.

One of the most serious problems with which we are confronted in protecting the lives of mothers and improving health standards for infants is the deplorable fact that a large percentage of mothers are attended during confinement by ignorant and careless midwives.

There were 45,050 births in the state last year and of this number 16,425 births of white children and 3,316 births of negro children, a total of 22,741 births were attended by physicians, while 16,777 births of negro children

and 1,926 births of white children, a total of 21,703 were attended by midwives. 606 births are recorded as having been attended by neither midwife nor physician. This shows that approximately 50% of the births of this state were unattended by physicians, but on the contrary, the mother was given necessary aid during the birth of her child by ignorant, and in the main, filthy midwives. It is, therefore, clear that one of the most important problems in the reduction of maternal mortality and the decrease of infant mortality is the midwife problem.

The public welfare seems to demand the practice of midwifery at the present time, but it is most unfortunate that the ignorance of the present-day midwife makes the practice of midwifery a menace to the public health. A survey of the midwife problem shows in an unmistakable way the need for reform in the existing conditions in the practice of midwifery. When it is realized that more than 90% of the midwives of the state can neither read nor write and in the majority of cases are uninformed in the simple principles of cleanliness, the midwife problem becomes one of grave import in the protection of the health of the mother and the reduction of infant mortality. In view of these facts, it is imperative that midwives be permitted to practice only when they meet certain qualifications determined by careful supervision, instruction and examination upon essential information required in attending a normal birth. For the past two years, the State Supervisor of Midwives, a well educated and trained nurse has visited each of the counties of the state and conducted a course of instruction during as much as two days for mid-

wives of the particular county. In giving this course of instruction they are advised relative to the simple principles of cleanliness, what to do and what not to do in attending a case of childbirth and are also required to provide certain equipment necessary in the practice of midwifery. If they measure up to the minimum requirements established by the State Board of Health they are issued permits which are continued from year to year, provided the midwife complies with the regulations of the State Board of Health for the practice of midwifery.

While we realize the extremely difficult problem of informing and properly instructing midwives who are in the main ignorant women, qualifications for the practice of midwifery in the future are being determined, and it is believed that progress is being made and that substantial results will be obtained over a period of years. The program of maternal and infant hygiene is so planned as to secure the intelligent interest and co-operation of the medical profession. The State is divided into four districts and district nurses are placed in charge of each territory. The supervising nurses have a definite program which, when completed during the year will be the means of making the work of state-wide interest and value. In turn, in a number of counties in these districts, there are nurses who are conducting an intensive campaign in maternal and infant hygiene. In this way, we hope to show the value of intensive work in certain counties in each district and it will be possible in this way to make a comparative study of the indirect value of the work in the respective counties upon the district at large.

It will be seen that by this plan a general educational campaign is being conducted throughout the entire state, while in certain counties an intensive campaign is being made with the intention of making a careful survey, the information from which will serve as a basis for correctly evaluating the method used and the results obtained.

THE MINNESOTA PLAN AND RESULTS TO DATE

BY DR. E. C. HARTLEY,

*Director Division of Child Hygiene,
Minnesota State Board of Health.*

When the Division of Child Hygiene of the Minnesota State Board of Health was organized nine and one-half months ago it was obviously subject, at the very beginning, to two permanently qualifying factors: the first of these is the size of the budget—which is moderate—and the second is the size of the state—which is large. Minnesota measures roughly 350 miles in length and 250 in width and its population of 2,400,000 is distributed in the average proportion of 29.5 persons to the square mile. When one adds to this the fact that the three large centers of population, namely, Minneapolis, St. Paul, and Duluth have had, for several years excellent facilities for carrying on Maternal and Infant Hygiene work and so are not included in our program, it will be seen that the population factor—by a process of dilution—becomes even more of a consideration. A concentrated population makes possible a concentration of facilities, while a scattered population adds many difficulties to the focusing of attention and inter-

est upon the very personal subject with which we are dealing. The establishment of such places as Health Centers—so valuable in making a particular health program a visible and concrete object of local pride—is here rendered difficult by the distances involved and the cost of establishment and maintenance, which must be borne by such a relatively small group of people.

In happy contrast to these rather unfavorable aspects of the situation in Minnesota there are several factors of distinct advantage to the working out of any plan for education in the Hygiene of Maternity and Infancy.

The first of these lies in the existence of two state wide women's organizations, keenly desirous of emphasizing in their policies the betterment of the mother and expectant mother and of the infants and children of the state. The acceptance of the Sheppard-Towner law by our legislature was largely due to the very active support of the measure received from these bodies. The ramifications of these organizations throughout the state makes it possible, usually, to find in any community women who see in the projects of this division, not only a means for the advancement of a health program but of strengthening a specific women's measure as well. They kill two birds with one stone, and the expanded purpose lends an added zeal to their co-operation.

Secondly, the University Medical School is located within a few blocks of the State Board of Health and between the two institutions a close harmony has always existed. The Departments of Obstetrics and of Pediatrics of the Medical School have always been helpful and interested in the educa-

tional work of the division. The Extension Division of the University plays a considerable part in the operation of such features of our program as the Correspondence Course in the Hygiene of Maternity and Infancy.

A similar active co-operation exists between the division and other state organizations and institutions and I have probably put the cart before the horse in not explaining in the beginning certain features in the organization of the division which make this co-operation so immediately available and helpful.

In organizing the Division of Child Hygiene, the State Board of Health provided for the formation of a State Advisory Board on Maternal and Infant Hygiene. This board consists of 9 members, 4 of whom are men and 5 women, representing the organized medical and nursing professions of the state, as well as the educational agencies and the organized women of the state. The duties of this board are to advise and suggest in the administration of the Sheppard-Towner work in Minnesota, and to secure co-operative action through the various agencies represented by its members. One of the first acts of this state Advisory Board was the creation of County Administrative Boards consisting of 5 members whose function is to plan and supervise the administration of Maternal and Infant Hygiene in the counties, subject to the provisions of the state and Federal laws and to the regulations of the State Board of Health. The personnel of these boards includes the county Health Officer, the chairman of the board of County Commissioners, a physician and 2 women members. The physician is selected by the county or

district medical society and appointed by the State Board of Health and the 2 women members are chosen by a special nominating board and thereafter appointed by the State Board of Health.

The two most essential and valuable factors in the work of the division are the physicians of the state and our public health nurses. But here, too, the elements of size and population enter to disturb a harmony of co-operation, which otherwise, so far as the spirit is concerned, might well have proved ideal. With the medical profession, a difficulty always appears in any attempt to organize clinics under local men, and this is unfortunate since it has seemed to us that clinics under local men were the logical forerunner of the Health Center. The difficulty lies in the fact that the physician in the territory in which we work has a general practice, and no one man will be accepted by the other physicians of a community as being unusually qualified for the job; certain elements in the struggle for existence complete the objection to any such arrangement. In most of the features of our program, however, the co-operation of physicians is complete and most encouraging.

When we began our work we naturally turned at once to the public health nurse for aid in establishing our program. As a rule we found the nurses engaged almost entirely in school work, since the school offered, in most cases, the only unit of approachable individuals; all others were so widely scattered and so variable in need and type as to make an unusually poor basis for the establishment of a workable nursing program in which early results might appear to a population often

none too enthusiastic over the need of a public health nurse. There are in Minnesota approximately 300 public health nurses of whom more than half—175—are concentrated upon less than one-third of the population of the state, that is, in the cities of Minneapolis, St. Paul and Duluth. The rural districts average one public health nurse to 13,000 people. Of these so-called rural nurses, 14 act as school nurses in the larger towns; 7 do both school and community work; 6 do community work only; 3 are industrial nurses and 2 are infant welfare workers. Of the 300, only 60 are county nurses who attempt to care for the small town and the farming population which covers by far the greater area of the state.

Contact with these nurses was secured and is maintained through a Superintendent of Public Health Nursing and 3 field nurses working with the division. By means of uniform report forms recently adopted, through regular regional conferences and by frequent field visits we are gradually securing a more uniform and consistent method of incorporating infant and maternal hygiene work in the activities of public health nursing.

Regarding our budget, the division will have operated during the entire first year on funds obtained from the Federal government with the exception of \$5,000, which was a gift of the Minnesota Public Health Association. For the coming biennium, however, our state legislature has appropriated \$15,000 yearly, so that there will be available \$35,000 for each of the next two years.

With these means and facilities, then, the division is attempting to carry on that campaign of "instruction and ad-

vice in the hygiene of maternity and infancy" which the Sheppard-Towner law designates through the following program whose separate projects I shall outline as briefly as possible:

1. A series of 9 *Prenatal Letters* is being issued to expectant mothers. Through the courtesy of Dr. Taliaferro Clark of the United States Public Health Service the division has adopted his series of letters with but little change. We have added a description of breast expression and its purpose to the seventh letter and with the ninth we included a reprint of an article on early child training which appeared in the May, 1920 issue of the *Archives of Pediatrics*, called "A Mother's Instruction to a New Nurse." For securing names of expectant mothers a small card form has been prepared. These cards are supplied to public health nurses, members of County Administrative Boards and to physicians. The first letter was sent out in February of this year and to date we have 350 names on our mailing list. During the last few weeks we have noted a definite increase in the number of names referred by doctors. We have found physicians rather hesitant in using these letters until they became familiar with them but once begun, they seem to become enthusiastic in their use. We encourage mothers, by every possible means, to request these letters from their physicians.

2. The division has prepared a Correspondence Study Course in the Hygiene of Maternity and Infancy, consisting of 15 lessons, each printed on a separate folder. We have arranged with the Extension Division of the state University to issue this course through their regular channels. This co-opera-

tion not only relieves us of a considerable amount of clerical work, but also gives to this work a certain amount of advertising which it might otherwise not have received. Women taking this course answer in writing a list of 10 questions accompanying each lesson; corrected papers are returned. There are no charges connected with the course. Each woman who satisfactorily completes the course receives a certificate bearing the seals of the division and the state University—but no University credit is given. The course may be taken by any individual in the state, although there is a growing tendency for the organization of classes to take the work. In several places such classes have been organized by public health nurses and turned over to one or more doctors of a community who act as instructors for the class. This method is being encouraged for obvious reasons. The work was started in February at the same time as the *Prenatal Letters*, and to date, 380 women have enrolled in the course. The papers as they come in show a remarkably high average of intelligent interest in the subject.

3. *The Sterile Obstetrical Package:* After consultation with a considerable number of practicing physicians throughout the state, the division has prepared an obstetrical package which contains, as nearly as possible the minimum material needed for a normal confinement in the home. It was found that such a package could be made at a cost of approximately \$2.00. The physicians of one county were canvassed with the purpose of learning whether they would be favorable to the idea of using such a package in their practice if the package—ready sterilized—could be made readily available

for their use. Some were doubtful—some were tremendously enthusiastic, but all were willing to give it a trial. A series of meetings throughout the country was then arranged whereby a nurse from the division could meet groups of women, demonstrate the package, explain its manufacture and make arrangements for the needs of particular communities. Such groups as church societies, Ladies Aids, etc., undertook to make up these packages and arrange for their sterilization at the nearest hospital. The package is sold either directly by such groups, by drug stores for these groups, or through physicians. At the present time there are 43 counties in the state in the whole or part of which these packages are available.

4. The division issues a monthly "News Letter" which is circulated among the public health nurses, physicians and members of County Administrative Boards. It has a circulation at present of 1,000. Its purpose is to stimulate a uniformity of interest and working methods in Sheppard-Towner work. An effort is made to secure from any nurse whose work is distinctive in its success or method, an article for the "Letter" giving her description and views of the work in question. The value of the Letter in informing nurses and others of new projects and of progress or modifications in old projects will be obvious.

5. *Mothercraft Classes:* The division has keenly felt, from the beginning the value of Mothercraft in any program for the improvement of the Hygiene of Maternity and Infancy. The value of such work has been most convincingly demonstrated in Chisholm—one of our Iron Range towns. The work

there was begun, rather tentatively, some two years ago. A group of girls was selected coming from homes which were of the type that might be expected to profit most by having one of its members instructed along the lines laid down in Mothercraft work. The results were remarkable; before many days had passed other girls in the school and many parents inquired why it was that the particular group selected must be the only one to receive such instruction. Naturally, the class was quickly increased to include all of the girls of the seventh and eighth grades. Mr. Vaughn, the principal of the Chisholm Schools, assures us that the instruction given these girls has worked wonders in many of the homes in the community.

The division is encouraging the establishment of this work wherever possible. We have prepared outlines for a Mothercraft course, have secured the necessary literature and have provided Mothercraft buttons and certificates for all who complete such a course. At present, the division is working on a booklet to cover a course in Mothercraft which will embody the infant and child feeding methods as taught in the Pediatrics Department of our Medical School.

6. *Demonstrations:* Last fall the division had a demonstration of its purpose and program at 53 of our county fairs. These fairs are largely attended and offer an excellent means of informing people of the use they may make of the State Board of Health.

Infant Feeding Demonstrations: In connection with the Baby Clinic Program of the Minnesota Public Health Association, the division has begun a series of demonstrations in the prep-

aration of infant foods and methods of feeding which will extend throughout the summer and reach practically every community in the state. Preliminary arrangements for a demonstration are as follows: personal letters explaining the nature of and reason for the demonstration are sent to every mother in the county in which the demonstration is to be held who has a child under two years of age. She is invited to attend the meeting whose time and place are given. The nurse from the division—whose name is always given in the letters to mothers—is equipped with everything necessary to properly prepare milk, cereal, vegetables, fruit, broth, etc. For this work the division has two nurses, equipped with Ford cars, working on separate schedules.

7. *The Nobles County Demonstration*: In an attempt to learn what would be the response from a typical rural community of the state to an effort to emphasize the need and value of a program for the improvement of the Hygiene of Maternity and Infancy, the division sent one of its nurses to spend two months in Nobles County for that purpose. The effort showed quite definitely that:

1. Women are deeply interested in this work.
2. Girls are deeply interested in Mothercraft.
3. Physicians are ready to co-operate if given definite and concrete measures in which they may co-operate. The same is true of the women: their interest rapidly cools unless they are given a definite piece of work in which their interest may express itself in tangible form. In Nobles County this interest expressed itself in many

registrations for the course, in the use of the Obstetrical Package and Prenatal Letters by the physicians and in the establishment of Mothercraft classes in every school in the county except one which was too small to provide space and facilities for the work.

8. *Prenatal Clinics*: Prenatal clinics, of course, are well established in Minneapolis and St. Paul. Elsewhere in the state there are none. The division plans to hold four regular monthly prenatal clinics in different parts of the state. While this number is naturally quite inadequate, it will nevertheless serve as a demonstration for other places. For the present, it is all the division will be able to undertake. One of the four is already established, a second was begun last week with an initial attendance of 12 which we felt was encouraging. The division provides material, literature, nurse, clinician; the community only the rooms in which the clinic is held. Such clinics are only held in counties having a public health nurse upon whom we must largely depend for enlisting the interest of local physicians and prospective patients.

9. Among means which the division uses to inform people of its work are talks before county and district medical society meetings and to the district meetings of the various women's organizations which are largely attended, the use of stereopticon and motion pictures, radio talks and publications of articles in medical, nursing, health, municipal and farmers' magazines, and the local papers of the state.

DISCUSSION

Miss Grace Abbott, U. S. Children's Bureau:

I have enjoyed this immensely and am exceedingly grateful to you for having an opportunity to hear this discussion. The Children's Bureau appreciates very much the courtesy and we hope you will be able to say the same things next year that we have not been interfering and meddling, but we hope to be able to report a larger measure of progress than in the past. I think that the reports of the states, one by one, are the most thrilling things that can be imagined. I have the usual unpleasant task of going before the Appropriation Committee to tell about them. I have no hesitancy in saying that I think as you do that only one of these state programs would amply justify the expenditures that have been made. I think in the next few years a very great change will be seen in the whole situation in the United States.

REPORT OF COMMITTEE ON MATERNITY AND INFANCY

BY DR. JAMES A. HAYNE,
*Chairman, State Health Officer of
South Carolina*

I think the reason Dr. McCormack appointed me on this committee was that he knew there would be a great many good and long reports and he knew with absolute certainty that I would never as chairman make a report of any sort, he thought he would get rid of that much of the program but I am going to disappoint him. We have heard my subject pretty well discussed from the angle of California, New York, Mississippi, Minnesota, etc. Of course down in South Carolina, when we hear reports from these states, with the exception of New York, for whom we do not claim motherhood, we feel very much like these good old hens who have raised a brood of chickens, ducks and guineas feel when they watch with a great deal of amusement the antics of the offspring.

We know that those states were settled by South Carolina and of course their descendants naturally are going along the right direction. We claim nothing for New York or Massachusetts. In South Carolina, the care of babies and mothers had come before the Board of Health from time to time. We had a Bureau of Child Hygiene definitely established by an Act of the General Assembly in 1917 which was some years before the Sheppard-Towner Fund stimulated the activities in a number of the states. The Sheppard-Towner fund has been a great deal of assistance in South Carolina in carrying out a program already mapped out. Without the money, we probably could not have carried out the plans which we had conceived. In looking over the plans of New York, I do not think that there is anything that South Carolina has left out that is incorporated in the New York plan. I do not think we have any monthly hygiene clinics in our Bureau but everything else we have including a truck. The only three trucks in the United States doing this infancy and maternity work—of course there will be fifteen or twenty—but there are only three at the present time, are in North Carolina, South Carolina, and I do not know where the third one is used. For that reason I want to speak of that one thing alone because that has not been touched upon.

Everything that I have heard mentioned we are doing in South Carolina; I want you to believe that absolutely and I am asking Dr. Rude to verify the statement. We have a Board of Regional Insultants, two pediatricians, an obstetrician who is a member of the Committee of Insultants. When we

first started the Bureau of Child Hygiene we tried to stand in with the physicians as much as possible so we appointed every pediatrician we could find in South Carolina as an Insultant for this Bureau. We pay their expenses down to the capitol and they have a delightful time listening to our program and approving it. This is also a function of the Board of Health; it comes down several times a year and listens to our plans and approves them. I want to tell you about the Baby Truck. It is something like the South Carolina State Board of Health, it is a little overweighted. It carries two nurses, a man to drive it and direct the energies of the truck; it has a tent and a fly to connect with the truck. I am speaking of a canvas fly; we have many other flies but this is just one. That truck goes to a town and is well advertised before it goes there. Babies are brought to it for examination. School children are brought there, and pre-school children are brought there to have their teeth examined. It carries a dentist and dental outfit so that we can do this work if necessary. It carries all the necessary equipment for examining babies, children, etc. It carries sufficient literature to give instruction on almost any subject, for any ills to which human flesh is heir, that is what makes it weigh so much. So far it has not broken down and has traveled from Charleston to Greenville which is across the State. Charleston to Greenville seems a long distance in South Carolina. It does not seem long in Montana or Minnesota. It has traveled this without having any punctures. We feel that we have accomplished something—how much I am not yet able to say.

I am getting to the age where I am a little dubious about statistics. I started out a promoter of better babies and more babies but as the years have progressed I have become not quite as enthusiastic as I was, that is, I do not know that the program has been carried out as well as I had first planned it. The death rate in South Carolina is appalling when you take both black and white together but if you separate the whites from the blacks and there are more blacks than whites, we have not such a bad death rate. It started out 105 per one thousand births, and at the present time it is about 65 for whites which is not so bad. It is about 115 for negroes. With all the handicaps the negro mother has and what she has to go through with, it is not so bad. Combined the rate is about 90; the last figures were 85. Our maternal death rate is the highest in the United States. When I have reviewed the reasons for it, you will understand it. Mississippi is about the same size as South Carolina, with just about as many negroes and whites—the only states in the union in which the negroes exceed the whites. About 1910 there were 100,000 more negroes in South Carolina than whites, out of a population of 1,600,000 people. Fortunately the attractions of the North—wages, more social recognition, etc., are taking a large number of them away and some of our problems will be solved by the inducements offered by the North. We are glad they will have a larger field for development and we hope many will take advantage of it. We have about 7,000 midwives in South Carolina, so called. We are attempting to educate them. They look very nice in their graduating classes. I attended a grad-

nating class of 15 in a church in Columbia. The pastor, a coal black individual, made one of the best speeches I ever heard. This class was all dressed in white, white caps and white aprons and were ready to take up the work of delivering the women of South Carolina. They had had their six weeks' training. The training consisted principally in telling them what not to do, very few things to do except as we expressed it, to take a bath as often as possible. That is their idea of hygiene and fairly good; we feel we have taken a step when we have told these women about what not to do. We are just starting the work, we have only gone through about seven or eight counties but we are trying make it as thorough as possible. One thing we make everyone do is to take an oath administered by the minister that they will uphold the State Board of Health and all its regulations. This is a very impressive ceremony, the pastor, as you know if you have ever seen one of our negro pastors, is one of the most impressive individuals. He walks out with great dignity and says, "The congregation will now stand while I administer the oath." And then he does it. They promise to uphold the State Board of Health and its regulations and we feel that we have done something to help them stand by us. I remember when I was elected chairman of the Section on Public Health of the American Medical Association, in casting around in my own mind for something to write about, I decided to give them an address on the rights of the child. Very few people were there, it was in the early part of the session and very few had come in but since publishing that pamphlet I have found people

now and then giving quotations from it; they do not credit them to me at all but I recognize the general tenor of the quotation and I feel I am a pioneer in this work. Ever since 1898, I have been working for more babies and better babies and I believe if we can continue in this work and take care of the babies that are born, we will have a great nation. In South Carolina, we are only 2% foreign born down there, North Carolina is only .8 of 1%.

DISCUSSION

Dr. Taliaferro Clark, U. S. Public Health Service: I can very cheerfully comply with one of your admonitions—that is to speak briefly. However, I do not think that I can say anything that will add to the illuminating expositions of what has been done in infant and maternal welfare work throughout the country. I was under the impression that it was the desire of the Surgeon General and the members of this association that this should be a meeting where the various states should get together, at least representatively, and tell what they are doing in this important field. Certainly they have told us in unmistakable terms that they are making great progress.

This is not an occasion to relate what the U. S. Public Health Service is doing for infants and children. Representatives of the service have come here to find out what is being accomplished by the states throughout the length and breadth of the land. Unfortunately, not being present when the majority of the papers were read, I am unable to discuss them intelligently. I was much impressed by what Dr. Rude said regarding the Children's Bureau starting the machinery and supervising it with the limited funds at their disposal, but that after all it rests with the State Bureaus and Departments of Health as to whether an effective program will be carried out—that the funds accruing to the states under the provisions of the Sheppard-Towner Act shall be used in such manner as to give the best returns.

I was much impressed with the remark by Dr. Brown that the special problems of maternal and infant health are closely

related to the whole problem of health administration. You cannot make separations successfully. Personally, I am of the opinion that the great interest which has been excited in infant and maternal welfare by the appeals to Congress to pass the Sheppard-Towner Bill has resulted in state health officials taking stock of all their resources and bringing them to a fuller realization of the necessity of giving more and more attention to safeguarding this large part of the population which is so susceptible to adverse influences. I am quite sure also that with increased funds that become available under the provisions of this act they will have a wonderful opportunity to organize at least one complete division in the state department of health, namely, a Child Hygiene Division. Many states which otherwise would not be able to do so will have a wonderful opportunity to organize such a smooth-working piece of machinery in the state department of health as will stimulate by its results legislative bodies to appropriate sufficient money to organize all of the bureaus or divisions of the state boards and departments of health along similar lines.

Miss Julia Lathrop, formerly Chief, U. S. Children's Bureau: I would like to thank you all for having this meeting. I thank my stars that I was able to come to it. There has been an effort made sometimes in the part of the country where I now live to make it appear that the medical profession was not altogether strongly for this measure. I have always known that we have one strong body of friends in the State and Provincial Health Officers. From the very first moment that Dr. McCormack came into the Children's Bureau when it was a little bit of a shop and we had only a few people in it until the present moment I have ever known the good will which he expressed; without it we could not have passed this bill and without it the measure would be a worthless one. Somebody who did not like the Bureau very well and did not approve of us very much said the Children's Bureau had done an awfully mean thing when they stirred the women up to ask for their first measure, for the most appealing thing in the world was a bill to protect mothers and babies. Now to hear this body of representative people making statements as to what has happened under

it—statements that are only a promise of what will be made to happen in the large states—affects me so that I can hardly trust myself to speak about it. Thank you very much for being what you are with the spirit that you have.

Dr. S. J. Crumbine, Kansas: I think what has already been said, has been better said than I can say it, my only regret is that I am here representing the great state of Kansas that failed to accept the provisions of the law. It is a combination of circumstances that makes the result as it is. If it came to a vote, I am sure it would have passed the House, not unanimously as it did the Senate but it would have been accepted. I want to add my word of appreciation for the fine spirit of the Children's Bureau and what this measure means to the motherhood and the coming generation. We started out a good many years ago, I think, the second or third state to have a child hygiene bureau in 1915 and we were apparently making some progress.

We have, I think, in Kansas something rather unique and I will only speak of that and then take my seat; that is, we have a public health car which we are utilizing, an old Pullman observation car made over to suit our purposes, in which we go out to see these mothers, children and babies. We talk to the mothers in person, face to face and discuss their problems as they present them to our nurses and doctors. I think that is meeting the situation in a fairly satisfactory way. It must be a cut and dried proposition that some of us are trying to put on, the only cut and dried part of it is the schedule which we make out in advance and the advertising necessary to broadcast the information that on a certain day the car containing our nurses and doctors will be there for the purpose of consultation. I only regret that that car will have to be taken off the road and left to rust on the side-tracks after the first of January.

Dr. Eugene R. Kelley, Massachusetts: I am very glad indeed to see the progress that has been made under the Sheppard-Towner Act. There is, of course, a great deal of misunderstanding as to the fundamental attitude of the state of Massachusetts. We have been given a fair start by the passage of an act providing for a \$50,000 appro-

priation for carrying on work similar to that provided for under the Sheppard-Towner act.

There is one point in my mind which I particularly want to bring out in the discussion and it is the point which worries me about this whole problem of Maternal and Infant Hygiene. One of the great Irish leaders of the early days, the late John B. O'Reilly, at one time when a very able plan was being evolved for the freedom of Ireland, went over the whole subject with a conference of leaders and finally O'Reilly said: "Gentlemen, the scheme looks good but I am afraid the stinking facts are against us"—and I am wondering a little whether or not we have our facts just right relative to the causes of maternal and infant deaths. I hope we have and I think we have, but it is astonishing how little we really know about what these figures of maternal deaths really mean.

I am very glad to hear from Dr. Brown. We are devoting to this work the full time of three physicians, a goodly portion of the time of two supervising physicians, and a field nursing force of six, in an attempt to get the real facts on maternal deaths. We started out with the idea that we would like to make this study for both maternal and infant deaths, but we find we cannot do this. For infant deaths it would take seven or eight physicians alone even for our relatively small state. I state this to make it clear what a tremendous job this really is. We think we are going to catch up this coming year with the real data on maternal deaths—I do not know whether we will or not, but this is the point I want to emphasize: I think we want to go fairly slow and have all the facts before us before we attempt to reach definite conclusions as to the immediate and remote causes of maternal and infant deaths.

The State Medical Society has in general been very much opposed to not only the Sheppard-Towner Bill but to all activities of health departments which might tend toward free general medical service. The society has appointed an exceedingly active committee of its own membership to co-operate with us in an attempt to find out the facts. I am of the opinion that about two or three years from now we can probably show that a very large percentage of the deaths that we now attribute to ma-

ternal causes cannot be so charged up. It is also obvious that there is a considerable proportion of deaths that are now by ordinary consensus of opinion charged to poor medical service that are perhaps not justly so chargeable. This will still leave a considerable number of cases for study. We have endeavored to have our medical investigators get on the ground early, and I feel that finally we will get some real facts as to the causes of maternal deaths and then perhaps we can find out how much responsibility the medical profession should carry but my impression is today we have placed rather too much responsibility for so-called maternal deaths on their handling by the medical profession—conclusions we draw from vital statistics returns just as Dr. Brown referred to the break-down period in the third, fourth and fifth months of pregnancy. Under conditions which at least leave the question open as to whether it was all pregnancy, we found a number of instances where death was due to other causes, as acute infection, we found a number of instances where the surgeon diagnosed during pregnancy as acute appendicitis or something of that sort with fatality charged to pregnancy. We have also discovered another thing and that is that there is apparently entirely too much Caesarian operating going on. The medical society itself is taking the lead on agitating for more conservation here. We are not attempting to do any work for communities. There are in the neighborhood of 1,000 public health nurses in Massachusetts and we feel the communities should do the job for themselves but we are trying to make a co-operative study of the situation. As for infants' deaths—it is simply hopeless, we will never be able to study those with the present staff or the staff we can probably get. We are hoping to meet our problems as best we can. The other side of the picture that is equally interesting is this same line of work being done in stimulating better infant hygiene service. So we are attempting what we can with our limited facilities in the matter of a complete study of the resources of the communities themselves from the standpoint of child hygiene. We have a staff of six nurses who devote their entire time to the work and they serve many communities in the state. We have a survey questionnaire

which we think is reasonably complete. I should like to have any of you look it over and if you think of anything that should go in, we will put it in. We are trying to make a finished job and get every fact that can have a bearing on the maternal and infancy question of any given community. It includes many things, school work, nutrition, activities of Parent-Teacher Associations as well as things more technical and direct. There again we feel highly encouraged because we finally have come to the conclusion that there are not many communities, when you come to the final analysis, that need to have this work done for them. There are some but not a great many. I think if we can get an intelligent enough study of what the facilities are that are lacking and can stay with them long enough and the matter is put up to them or to what they can do out of their own resources, that most communities will solve their own infant hygiene problems.

We hope to get through that within the next couple of years with our staff of experts and then endeavor to work out with each community or small group of communities how to work out their local problem on the basis of facts that we have listed. While we are spending this much money we would like to get all the facts that have any bearing on it at all, and see what is the result; in other words, whether we can get a corresponding reaction out of the communities themselves on their own finances and their own resources as a result of the advisory, stimulative and supervisory work of the state.

Dr. Flannagan, Virginia: It would be of interest doubtless to this body to tell about the way in which Virginia is using the Sheppard-Towner money. We are in sympathy with Dr. Kelley's point of view that as long as there are a large number of public health nurses scattered here and there over the state, that it is best to use them for the Sheppard-Towner job as they are right on the ground. The State Board of Health of Virginia, under the leadership of Dr. Ennion G. Williams with Dr. Mary E. Brydon as Director of Child Welfare, has pooled the Sheppard-Towner money with the school hygiene money appropriated by the legislature of Virginia and has apportioned it to the counties to aid them in their efforts to supply public health nurses and to help

support nurses already in the field. This method of using Sheppard-Towner money has been approved by the Washington authorities. One-fourth of the nurse's time is allotted by definite agreement to Sheppard-Towner work. The result has been that we have been able to put in a great many more public health county nurses than we were able to do before; the State puts in one-fifth of the money necessary to start that nurse and the county from tax funds and from local organizations usually puts up the rest of it—one-fifth from the state and four-fifths from the county. We have been able by this method to double our available nurse subsidy. This money used in this way in addition to stimulating mid-wife instruction in the state at large thus definitely aids in the larger child welfare program carried on by these nurses in their field of activity.

Dr. Palmer, American Child Health Association: I am a very new member of the American Child Health Association and have listened with a great deal of interest to this meeting. I think the position of the American Child Health Association is that of wanting to co-operate in a useful and effective way to the betterment of child health work. Just where this voluntary association can fit in to the best advantage has not been clearly mapped out as yet and all that I can say at this time is that instead of climbing up on the hills and perhaps duplicating what someone else is doing we stand ready to try to fill up some of the void in public health knowledge; other than that I cannot say much at this time.

Miss Harriet Leete, American Child Health Association: I think Dr. Palmer has expressed quite definitely the aims of the American Child Health Association. It is the amalgamation of the two oldest associations, the American Child Hygiene Association and the Society for the Prevention of Infant Mortality. We do take prenatal and school age with the thought that perhaps we may be of more service in filling in the gaps. We know there are eighteen states in the registration area. We do not know whether there is a place there in which we can help state departments of health; we do know that local communities are doing the best that they can to take

care of their children; whether a national organization can help in some very definite way is for us to learn. Certainly it is our objective to help the local communities whether it is New York City or one of the rural communities in the far distant places. But we want every child to have his chance.

Dr. Love, Colorado: I regret to say that Colorado is not at present in the registration area for births; perhaps there are some reasons for that, which will not be so difficult to remedy. Certainly one of the reasons has been that we have a large number of midwives who are even afraid to let it be known that they are midwives. They purposely avoid handing in birth reports with the idea that in that way they will avoid being discovered. In listening to this most interesting discussion many things have run through my mind, some of which I think are worth mentioning at this time, particularly I would like to have the position of Colorado better understood. I want by the way before I forget it to tell Dr. Crumrine that I shall certainly make every effort to see to it that that train has plenty of grease for the wheels after the first of next January. I believe if Dr. Rude is not going to object to such a program that in some way or another we can manage to make use of that car in Colorado. Now may I take a minute if you please to explain some of our difficulties in Colorado. I am inclined to think, and I am pessimist enough to believe, that Colorado has been facing more than the usual amount of opposition from certain sources. I also have reason to believe that in spite of all the beautiful features in California, in spite of the wonderful work being done by Dr. Brown out there, they also have had trouble along this same line but perhaps have taken a different stand in the matter and have gotten farther with it. One of the great difficulties that we had in the recent session of the legislature was to get them to give us any money at all for the Sheppard-Towner work and there were some serious objections presented. For instance it was openly stated that this money was given to the state to meet national money; that the State Board of Health was then going to send members of the Venereal Disease Department to every home of prospective mothers and take the Wassermann test whether they liked it or not. The legis-

lature was influenced to no slight degree by the chiropractors in our state and the doctors are actually being awakened to the fact that we have got to fight and I believe that during this next two-year period we we are going to get greater co-operation among the medical profession than we have ever had as a result of the stimulus of the chiropractors' actions and we are going to begin to work. The Parent-Teacher Association of Colorado has been no little interference in some of our work and it is simply because the Association in Colorado is backed to a considerable extent by women scientists who, banding together and working together take more than an active interest in health measures—(in their opposition, rather) than do the rest of the women of the state.

The Colorado State Board of Health has not at the present time a Division of Child Hygiene or Child welfare. That was created separately and that is also governed or influenced to some extent by the scientists of the Parent-Teacher Association. That nearly lost for us any money which we might have received from the national government and it was finally understood among some of the legislators that at the next session two years from now we will put the child hygiene or child health bill under the State Board of Health and then they will see fit to give us more money. Until this is done we are very limited as the legislature only gave us \$5,000 with which to meet the National money. However we are getting started and I wish to thank Dr. Rude for her help in assisting us to do this work in Colorado.

REPORT OF THE COMMITTEE ON COMMUNICABLE DISEASES

BY S. W. WELSH, M. D.

*State Health Officer of Alabama,
Chairman*

Your Committee on Communicable Diseases begs leave to make the following report:

Assuming that you have in your files the tabulated report written one year ago, we are handing you here a summary of that report in the form of

tables, setting forth for each disease the method of handling it in the several states. The report is largely statistical and will appear in the published transactions.

We debated recommending a uniform method of handling all communicable diseases by the states but reviewing the reports of former committees dealing with this subject, your Committee decided to recommend a uniform quarantine on but three diseases which are common to all the states, and which a uniform time and method of isolation would greatly facilitate the work of every county and state health officer in the country. The diseases are:

SMALLPOX—Minimum period of twenty-one days and until crusts and

scales have disappeared and the skin returned to normal.

SCARLET FEVER—Minimum period of thirty days and until all pathological discharges have ceased and throat has assumed a normal appearance.

DIPHTHERIA—Until two negative cultures from the throat and nose have been obtained, at least twenty-four hours apart; the first swab for release taken not earlier than the 10th day from date of onset. If culture method is not used, a minimum quarantine of twenty-one days and until all pathological discharges and other symptoms have subsided.

Signed,

S. W. WELCH,

Chairman.

RABIES

States Reporting Increase of Rabies	Measures of Control	States Reporting No Increase	Measures of Control
Alabama.....	None.....	Colorado.....	None
Florida.....	None.....	Kansas.....	None
Georgia.....	None.....	Maryland.....	None
South Carolina.....	None.....	Nebraska.....	None
Arizona.....	Restraining dogs	Alberta.....	None
Arkansas.....	Restraining dogs	Connecticut.....	Restraining dogs
California.....	Restraining dogs	Delaware.....	Restraining dogs
Massachusetts.....	Restraining dogs	District of Columbia.....	Restraining dogs
Mississippi.....	Restraining dogs	Illinois.....	Restraining dogs
New Mexico.....	Restraining dogs	Indiana.....	Restraining dogs
North Carolina.....	Restraining dogs	*Louisiana.....	Restraining dogs
Rhode Island.....	Restraining dogs	Virginia.....	Restraining dogs
Utah.....	Restraining dogs	Ontario.....	Restraining dogs
Washington.....	Restraining dogs	Pennsylvania.....	Restraining dogs
Kentucky.....	Education	Iowa.....	Education
Oklahoma.....	Education	British Columbia.....	Education
New Jersey.....	Education		
Idaho.....	Through Dept. Agriculture.	Oregon.....	Activities live stock men
Tennessee.....	Activity live stock men	Michigan.....	
		Minnesota.....	
		New Hampshire.....	
		Saskatchewan.....	

*Louisiana also gives education.

States in which Rabies is not a Problem

Maine	Quebec	Wyoming
Montana	Wisconsin	
Nova Scotia	Vermont	

SMALL POX

Period Not Stated	Until Skin Becomes Normal	Until Complete Recovery	On Basis of Time
Louisiana Maryland Mississippi Ohio Rhode Island Texas	Alabama California Colorado Connecticut Delaware District of Columbia Kansas Maine Minnesota Montana New York Oklahoma West Virginia Wyoming British Columbia Quebec	Arizona Arkansas Iowa Wisconsin	Florida—14 days *New Jersey—14 days South Dakota—14 days Vermont—14 days Ontario—14 days *Saskatchewan—14 days Michigan—16 days Tennessee—16 days Idaho—21 days Illinois—21 days Indiana—21 days Kentucky—21 days Nebraska—21 days Oregon—21 days South Carolina—21 days Utah—21 days Washington—21 days *Massachusetts—28 days† Nova Scotia—28 days **Pennsylvania—30 days

NORTH CAROLINA DOES NOT QUARANTINE.

New Hampshire leaves the period of quarantine to discretion of the local health officials, to be approved by the State Board of Health.

*Until skin becomes normal.

**Until complete recovery.

†In Massachusetts, State has no authority regarding quarantine; each local board of health has complete jurisdiction. Statements relative to Massachusetts mean that most local jurisdictions enforce these provisions, not that it is uniform throughout the State.

SCARLET FEVER.

Period Not Stated	Until Complete Desquamation	Until Complete Recovery	On Basis of Time
Arkansas Louisiana Mississippi Rhode Island	District of Columbia Wyoming	Iowa	Idaho—10 days Ontario—10 days Connecticut—21 days Delaware—21 days Indiana—21 days *Maryland—21 days Nebraska—21 days South Carolina—21 days South Dakota—21 days Tennessee—21 days Colorado—28 days Illinois—28 days *Massachusetts—28 days† Minnesota—21 days (nose, throat, ear discharges) Montana—28 days Michigan—28 days North Carolina—28 days *Oklahoma—28 days West Virginia—28 days Wisconsin—28 days Quebec—28 days Alberta—28 days Arizona—30 days California—30 days *Florida—30 days Kentucky—30 days Maine—30 days *New Jersey—30 days Ohio—30 days Oregon—30 days Utah—30 days *Pennsylvania—30 days Nova Scotia—30 days *British Columbia—30 days *Alabama—35 days *Kansas—35 days Virginia—35 days *Saskatchewan—35 days New York—36 days Washington—42 days

*Until desquamation is complete.

**Until complete recovery.

†See note on Massachusetts under Small Pox.

New Hampshire leaves period to discretion of local health officials, to be approved by State Board of Health.

DIPHTHERIA

Period Not Stated	Until Negative Cultures Are Secured	On Basis of Time
District of Columbia	Alabama	
Louisiana	Arizona	
Mississippi	Arkansas	Ontario—12 days
Montana	California	
Rhode Island	Connecticut	*Oregon—14 days
Texas	Delaware	*Utah—14 days
	Florida	
	Idaho	Colorado—21 days
	Indiana	*Illinois—21 days
	Kentucky	Kansas—21 days
	Maine	Michigan—21 days
	Maryland	*Pennsylvania—21 days
	Minnesota	New Jersey—21 days
	Nebraska	North Carolina—21 days
	New York	South Carolina—21 days
	Ohio	*Nova Scotia—21 days
	Oklahoma	
	Tennessee	Iowa—28 days
	Vermont	
	Wisconsin	*New Mexico—30 days
	Alberta	
	British Columbia	South Dakota—42 days
	Quebec	
	Saskatchewan	
	†Massachusetts	

*Until negative cultures are secured.

New Hampshire leaves period to discretion of local health officials, to be approved by State Board of Health.

†See note on Massachusetts under Smallpox. All but few smaller jurisdictions release on culture basis, a few on basis of time, which may vary slightly from time to time.

MUMPS

STATES QUARANTINING			STATES NOT QUARANTINING		
Period Not Stated	Until Glands Become Normal	Until Complete Recovery	On Basis of Time	No Quarantine	Placeard
Rhode Island	Arizona	Utah	*Idaho—7 days	Indiana	Iowa
South Dakota	Arkansas		*Massachusetts—7 days†	Mississippi	
Virginia	Colorado		Oregon—7 days	Montana	
	Connecticut			New Jersey	
	Delaware		*Maine—10 days	North Carolina	
	Maine			Tennessee	
	Maryland		*California—14 days	Wisconsin	
	New Mexico		Florida—14 days	Wyoming	
	Washington		Kansas—14 days	Quebec	
	West Virginia		Kentucky—14 days		
	British Columbia		*New Jersey—14 days		
	Nova Scotia		Vermont—14 days		
			Alberta—14 days		
			Pennsylvania—16 days		
			Nebraska—18 days		
			Alberta—18 days		

*Until glands become normal.

†See note on Massachusetts under smallpox.

Period of quarantine left to local health officials, to be approved by State Board of Health, in State of New Hampshire.

PNEUMONIA

STATES QUARANTINING			STATES NOT QUARANTINING
Period Not Stated	Until Complete Recovery	Placard	
Idaho Michigan Minnesota Montana New Jersey New Mexico Oklahoma Oregon South Dakota Vermont Washington Wyoming	Arkansas California Colorado Connecticut Maine Maryland	Iowa	Alabama Arizona Delaware District of Columbia Florida Illinois Indiana Kansas Massachusetts† Mississippi Nebraska New Hampshire New York North Carolina Ohio Pennsylvania Rhode Island South Carolina Utah Virginia West Virginia Wisconsin Alberta British Columbia Nova Scotia Ontario Quebec Saskatchewan

†See note on Massachusetts quarantine procedure under smallpox.

INFANTILE PARALYSIS

Period not Stated	Until Complete Recovery	On Basis of Time.
Louisiana Maryland Mississippi New Jersey New York Rhode Island South Carolina Virginia Ontario	Arizona Arkansas Michigan New Mexico Alberta	Idaho—7 days Alabama—14 days Colorado—14 days Minnesota—14 days Montana—14 days Oregon—14 days South Dakota—14 days Tennessee—14 days *Washington—14 days Wyoming—14 days Quebec—14 days Connecticut—21 days Delaware—21 days District of Columbia—21 days *Illinois—21 days Iowa—21 days Kansas—21 days Kentucky—21 days Nebraska—21 days North Carolina—21 days Ohio—21 days Oklahoma—21 days Pennsylvania—21 days Texas—21 days West Virginia—21 days Wisconsin—21 days British Columbia—21 days Indiana—28 days *Massachusetts—28 days† Utah—28 days Nova Scotia—28 days California—30 days *Florida—30 days Missouri—30 days Saskatchewan—42 days

*New Hampshire leaves period of detention to local health officials, to be approved by State Board of Health.

†See note on Massachusetts under smallpox.

EPIDEMIC MENINGITIS

Period Not Stated	Until Negative Cultures are Secured	Until Complete Recovery	On Basis of Time
Louisiana Mississippi New Jersey New York Rhode Island South Dakota Tennessee Texas Virginia Alberta Ontario	Alabama Arizona Arkansas Colorado Connecticut District of Columbia Florida Illinois Maryland Oklahoma West Virginia British Columbia	Iowa Michigan Pennsylvania Vermont Quebec	*Idaho—7 days *California—14 days Massachusetts†—14 days *Maine—14 days Minnesota—14 days Montana—14 days North Carolina—14 days *New Mexico—14 days Oregon—14 days South Carolina—14 days Utah—14 days Washington—14 days Wisconsin—14 days Wyoming—14 days Kentucky—20 days Kansas—21 days Nebraska—21 days Ohio—21 days Indiana—28 days Nova Scotia—28 days

Delaware quarantine 7 days after fever disappears.

New Hampshire leaves period of quarantine to discretion of local health officials, to be approved by State Board of Health.

*Until negative cultures are secured.

**Until complete recovery.

†See note on Massachusetts under smallpox.

MEASLES

STATES QUARANTINING				States Not Quarantining
Period Not Stated	Until Complete Recovery	On Basis of Time	For School Purposes	
Arkansas District of Columbia Iowa Wisconsin	Arizona Indiana Mississippi New York Rhode Island Tennessee	Illinois—5 days Maine—5 days New Mexico—5 days Wyoming—5 days California—7 days Colorado—7 days Connecticut—7 days *Delaware—7 days *Kansas—7 days Maryland—7 days Michigan—7 days Montana—7 days New Jersey—7 days North Carolina—7 days Ohio—7 days Oklahoma—7 days Oregon—7 days *Washington—7 days Alabama—10 days Florida—10 days Kentucky—10 days *Massachusetts—10 days† Minnesota—10 days Vermont—10 days Idaho—14 days Nebraska—14 days So. Carolina—14 days Utah—14 days Virginia—14 days W. Virginia—14 days Alberta—14 days Ontario—14 days Pennsylvania—16 days	Texas	British Columbia Quebec

*Until complete recovery.

New Hampshire leaves period of quarantine to local health officials, to be approved by State Board of Health.

South Dakota has conditional quarantine.

†See note on Massachusetts under smallpox.

WHOOPING COUGH

STATES QUARANTINING					States Not Quarantining
Period Not Stated	Until Paroxysmal Cough Has Ceased	Until Complete Recovery	On Basis of Time	For School Purposes	
Arizona Mississippi New York Rhode Island South Dakota	Alabama Arkansas Dist. of Columbia Maine Wyoming Alberta British Columbia	Iowa Michigan Wisconsin	Minnesota—10 days Ohio—14 days Oklahoma—14 days West Virginia—14 days Ontario—14 days California—21 days Connecticut—21 days Idaho—21 days Nebraska—21 days Pennsylvania—21 days South Carolina—21 days New Jersey—21 days Nova Scotia—25 days Colorado—28 days Delaware—28 days Maryland—28 days Massachusetts—28 days† New Mexico—28 days North Carolina—28 days Kentucky—30 days Illinois—35 days Indiana—35 days Utah—35 days Washington—35 days Kansas—42 days Virginia—42 days Florida—50 days Oregon—60 days Vermont—60 days Saskatchewan—56 days	New Mexico Texas	Quebec Tennessee

Montana has modified quarantine.

New Hampshire leaves period of quarantine to local health officials, to be approved by State Board of Health.

†See note on Massachusetts under smallpox.

CHICKEN POX

STATES QUARANTINING				States Not Quarantining
Period Not Stated	Until Skin Becomes Normal	Until Complete Recovery	On Basis of Time	
Arizona Arkansas Oklahoma South Dakota Tennessee Virginia New Scotia	Alabama Colorado Connecticut District of Columbia Illinois Indiana Maine Maryland New Mexico Washington Wyoming Alberta British Columbia	Iowa Michigan Ohio Wisconsin	Illinois—10 days Kentucky—10 days Minnesota—10 days *California—12 days *Kansas—12 days *New Jersey—12 days Vermont—12 days Florida—14 days *Massachusetts—14 days† Nebraska—14 days Oregon—14 days South Carolina—14 days Utah—14 days West Virginia—14 days Saskatchewan—14 days Ontario—14 days Pennsylvania—16 days Idaho—21 days	Mississippi New York North Carolina Rhode Island Quebec

*Until skin becomes normal.

New Hampshire leaves period to local health officials.

†See note on Massachusetts under smallpox.

TRACHOMA

STATES QUARANTINING					States Not Quarantining
Period Not Stated	Until Complete Recovery	For School Purposes	Provisional or Modified	42 Days	
Alabama Delaware Massachusetts† Vermont Nova Scotia Ontario	Arkansas Connecticut Idaho Illinois Indiana Iowa Kansas Kentucky Oregon Rhode Island South Carolina	Arizona Colorado Dist. of Columbia Florida Maine New Mexico Ohio Oklahoma *Tennessee Texas Washington West Virginia Wyoming Saskatchewan	Minnesota Montana	South Dakota	Michigan Mississippi Nebraska New Hampshire New York North Carolina Pennsylvania Utah Virginia Wisconsin Alberta British Columbia Quebec

*Also 42 days

†See note on Massachusetts under smallpox.

HEALTH EXAMINATION PLANS
OF NATIONAL HEALTH COUNCIL

BY DR. A. J. McLAUGHLIN,

*President, American Public Health
Association*

It is proposed to have a national campaign for health examinations inaugurated the Fourth of July capitalizing the Nation's birthday with the slogan, "Have a Health Examination on Your Birthday." This examination is not confined to any sex or age. It is for men and women from the cradle to the grave. The thing if carefully planned will have a pre-publicity campaign beginning on the morning of the 17th of May on the Health Day of the National Conference of Social Work and from that to the 4th of July, the publicity campaign will be pushed, literature, posters and other devices of advertising will be prepared to be distributed to the local and state committees engaged in the movement so by July 4th the real campaign of health examinations can be undertaken by state and local committees. The examination blanks have been prepared

by a committee of the American Medical Association and this is very important because the idea is to enlist the entire medical profession in the movement. The examination blanks for women are prepared by the Women's Foundation for Health and the examination blanks for children by the American Child Health Association. Now a man in whom I have the greatest confidence, a Central States man, threw a little doubt in my mind about the value of the campaign but it was only for the moment. He brought to my attention the fact that we are unprepared for health examination propaganda and that argument cannot be combated. What kind of health examinations are we going to get for the people who answer our call? Looking at it coldly, I believe you will all waive that objection because perhaps the best way to get ducks to swim is to throw them into the water. I believe that this campaign while we will not have the facilities which we should have to answer the call and to make the examinations, will develop the need and technique by which people will really get an examination; that

means something will be developed. And I simply want to add that if I were in the harness as a state health officer or a city health officer instead of a preacher, I should take active interest in this health campaign. I want to speak for this campaign for the National Health Council which as you know takes in all the great unofficial agencies working in the United States and I want to bespeak for them the keen interest of all the health officers in this gathering.

REPORT OF COMMITTEE ON RE- CENT ADVANCES IN SANI- TARY PRACTICE

By H. A. WHITTAKER,
Minnesota, Chairman.

This report includes information collected from state and provincial health authorities on advances in sanitary practice made in their organizations since the 1922 meeting of the Conference. An attempt has been made to confine the report to an enumeration of specific work undertaken since the last report, and not previously reported, and does not go into detail regarding the work accomplished in any new line of activity, or additional work undertaken in activities previously reported. The report is intended to serve as an index of recent advances in sanitary practice in the states and territories of the United States and the provinces of the Dominion of Canada that have furnished reports in response to the request of the Committee. It is the opinion of the Committee that detailed information on any specific activity mentioned in the report can better be obtained directly from the health or-

ganization reporting. The material has been assembled under the same subdivision of public health activities used in the last report of the Committee.

ALABAMA

The State Board of Health reports recent activities in administration, vital statistics, communicable diseases, sanitary engineering, laboratory, child hygiene, public health education, public health nursing, tuberculosis, venereal diseases, foods and drugs, research and miscellaneous work.

Administration: A complete readjustment has been undertaken in the administrative office with the view of obtaining greater efficiency in management and greater co-operation from the different bureaus of the State Board of Health. An attempt has been made to eliminate all red tape and to get immediate action and results. Changes in policies in administration of the various bureaus is taken up under the other sub-divisions following.

Vital Statistics: Considerable education has been found necessary in order to change the method of collecting statistics to conform with the requirements of the Model Law which was put in operation January 1, 1920. The principal efforts of the department have been directed toward perfecting the organization and securing suitable persons for the 1,773 registration districts.

During the year, representatives of the department visited practically every county in the State and had interviews with the majority of local registrars.

A test of death registration for the months of August and September was made by the Census Bureau and a rating of 85.1 given. A survey of the birth

registration was made for the first six months of 1922 by the Children's Bureau which gave the department a rating of 87.7.

Notification cards are being sent to the mothers of all children whose births are recorded. Completed indexes are made and kept up to date of births and deaths.

The progress shown seems to indicate that Alabama will qualify for the Registration Area in the near future.

Communicable Diseases: The work of the Bureau of Epidemiology has been reorganized during the last few months. A new system of reporting notifiable diseases is being tried. A report card is sent to every physician in the State once each week for his formal and written report (confirming report by telephone when notification is urgent.) The cards are run through the addressograph and enclosed in window envelopes. In the organized counties the cards are returned through the county health officers to this Bureau; in the unorganized counties, the return is direct to the Bureau.

The main features of this system of reporting are: (a) making as little trouble for the physicians as possible, consistent with obtaining the necessary information; (b) a periodic stimulation of all the physicians in the State once each week to notify the health authorities of any cases of contagious diseases that they may have had.

It is too early to say whether this system of reporting is going to be altogether satisfactory, but the progress made so far indicates that it is a considerable improvement over the old system.

Sanitary Engineering: Malarial Control work, hitherto confined to urban

demonstrations, is being extended to reach effectively the rural areas of the State. The State has been divided into five districts and an engineer assigned to each district, with field headquarters. Each engineer covers about 5 counties. A utility engineer, in the central office, answers all emergency calls. Through information obtained from the epidemiological department foci of infections are located and the field men informed. Regulations governing the impounding of water were passed, and a special field man assigned to the control of impounded waters and their studies.

Laboratory: The main laboratory has established branch laboratories so that all sections of the State can receive twenty-four hour service on practically all specimens. It has standardized the methods and technique so that the public health laboratory work of the state is comparable. Free outfits are furnished physicians for sending specimens to the laboratories.

Educational measures have been inaugurated directed to physicians and health officers regarding the purpose and functions of the Public Health Laboratory.

Experimental work on the practicability of prophylactic vaccination of dogs against rabies with a view of introducing this measure throughout the State has been begun.

Experimental work was carried out to determine the effect of the introduction of *Gambusia* into water supplies on the bacteriological examination of such water.

Experiments to determine a satisfactory medium for the shipment of feces for the diagnosis of typhoid and the

determination of typhoid carriers are now being conducted.

Child Hygiene: The provisions of the Sheppard-Towner Act were accepted by the Governor of Alabama in March, 1922, and co-operative work was begun April 1, 1922. A joint resolution of the Senate and House of Representatives endorsing the action of the Governor was passed by the Legislature of Alabama in February, 1923. An institute on Maternity and Infancy work for officers and nurses was held in February, 1923.

See also "Public Health Education" and "Public Health Nursing."

Public Health Education: During the year, a course in Health Education for teachers has been planned, which is being given as an Extension Course in connection with the University of Alabama by an assistant of the Bureau of Child Hygiene.

See also "Laboratory", "Tuberculosis", and "Venereal Diseases".

Public Health Nursing: Work has been inaugurated under the Sheppard-Towner Act in eighteen of the twenty counties with full-time health units. A total of twenty-eight nurses are employed.

Tuberculosis: An arrangement for co-operative work between the Alabama Tuberculosis Association and the State Board of Health was reached in the spring of 1922. An active educational campaign was put on under the direction of a field agent. The salary and expenses of this man were paid by the Alabama Tuberculosis Association and his activities were directed by the State Board of Health. The result of this educational campaign will probably bring about an appropriation for a state tuberculosis sanatorium. Bills

contemplating such legislation have already been introduced, and action will be taken at the adjourned session of Legislature convening in July.

Venereal Diseases: A clinic has been operated in one of the larger cities for treatment of congenital syphilis—cases being reported by the school nurses and three of the Children's Aid Society.

This Bureau has co-operated with the Laboratory in securing equipment and furnishing the physicians such supplies as are necessary to insure standard results in the shortest possible time on all tests relating to venereal disease diagnosis and control. Through these combined efforts, work done in this line by the laboratories has more than doubled. The Bureau has also joined with the Bureau of Epidemiology in securing from the physicians a more complete report of venereal diseases as indicated by the laboratory findings.

Since August 1922, ampules of distilled water have been furnished to clinicians in the smaller towns where it is impossible to procure same.

A special effort has been made to get sources of infection, and to enforce treatment.

Every saw mill in the State has been reached with a letter, literature, and an offer of co-operation in treatment of employees. This has brought very good response and added several physicians to the list of co-operative clinicians.

In educational work, three new pamphlets have been added by this Bureau—"Teen Age Sanitation", "Christian Clinics", and "Suggested Course of Treatment for Syphilis in Alabama Clinics."

Neutral Acriflavine, Mercurosal, and Novarsenobenzol Billon have been ad-

ded to the list of drugs furnished clinicians.

Foods and Drugs: A study of milk sanitation upon a state-wide basis, and the formulation of a program of state-wide milk control, has been undertaken in co-operation with the United States Public Health Service. The program includes (1) The formulation of a model milk grading ordinance, (2) the urging of the passage of this ordinance upon all municipalities in the State having a milk sanitation problem, (3) studies of methods of bringing about the adoption of milk legislation without the customary bitter antagonism from the dairy interest, (4) the general state-wide direction of the enforcement of a model ordinance. (The immediate enforcement of an ordinance will be done by the local authorities, but the State Board of Health will take upon itself the responsibility of guaranteeing against local failure to enforce.) (5) A state-wide campaign for the use of more and better milk.

Research: See "Laboratory."

Miscellaneous: The Bureau of Inspection of the State Board of Health is responsible for the enforcement of the State Hotel Law. Since March 1, 1922, the regular inspection of hotels have included scoring, according to a schedule, based upon the provisions of the State Hotel Law.

The State Hotel Law prescribes that hotels shall be equipped with means for sanitary sewage disposal, and with properly located fire escapes. Hotels which do not comply with the law in either of these respects are really operating in temporary violation of the law, and score zero. Hotels which do not obtain the score of seventy or above in either department of operation, lodging

or meals, are not given certificates. On the basis of these scores, the progressive change in conditions can be determined by the averages of the scores attained at the times of the first, second, and third inspections.

ARKANSAS

The State Board of Health reports research work done last fall on dengue fever. Extensive microscopic studies were made with the view of isolating the organism causing the disease. The laboratory observations on blood specimens followed exhaustive epidemiological studies in the city of Texarkana, Arkansas and Texas, where dengue fever had reached an epidemic. An organism was isolated which it is thought is the organism causing dengue fever. It is intended to continue these observations and to endeavor to secure confirmatory evidence.

CALIFORNIA

The State Board of Health reports recent activities in communicable diseases, sanitary engineering, and public health education.

Communicable Diseases: A new test for determining diphtheria immunity, called the Kellogg test, has been developed by the State Hygienic Laboratory. This test consists of the injection into the skin of a white guinea pig of a mixture of equal parts of blood serum from the person tested and a toxin dilution containing 1-30 of L plus dose per cubic centimeter. The reactions give conclusive evidence as to the presence or absence of immunity to diphtheria. It is a central laboratory test, possessing the advantage of being suitable for determining the immunity or nonimmunity of individual cases. The Schick test

is of necessity better suited for the examination of large groups of individuals. It possesses great convenience in relieving the physician of responsibility for the interpretation of the doubtful reactions so frequently observed in the Schick test. Controls which guard against deteriorated toxin and false negative reactions are possible in connection with this test. Protein reactions do not occur, and if the proper technique is used false negative reactions are believed to be impossible of occurrence.

Full technical descriptions of this test have been published in the Journal of the American Medical Association, Vol. 78, page 1782, June 10, 1922, and Vol. 80, page 748, March 17, 1923.

Sanitary Engineering: During the past year remarkable advances have been made in the sanitation of automobile camps throughout the State. A million and a half individuals enter the national forests of California annually, and hundreds of thousands of Californians as well as residents of neighboring states motor every season to the west coast scenic marvels. A few years ago, when this seasonal movement started, there were no camping facilities provided. This resulted in widespread promiscuous camping, with its attendant offenses in sanitation. At the present time, under the supervision of the California State Board of Health, nearly every city in the State and many counties have provided public automobile camps fully equipped and conducted in strict accordance with regulations for sanitation. This service is provided free by most communities. Some of them, however, make nominal charges, which help to finance the equipment and supervision of the camp.

The sanitation of swimming pools has been greatly improved during the past year. A large number of new swimming pools have been built, all of which conform to the requirements of the California State Board of Health.

Public Health Education: The State Board of Health has found it necessary to issue a weekly publication to health officers, hospitals, nurses, physicians and individuals. This publication is intended primarily for the dissemination of information concerning the prevalence of the various communicable diseases. Since the use of the automobile for transportation purposes has destroyed absolutely the isolation of rural communities, it is of the utmost importance that health officers be advised at short intervals concerning the existence of communicable diseases in the various communities throughout the State. The weekly bulletin which has been published for a year, is fulfilling this mission. Statistical material and bureau reports are published in the quarterly bulletin. This new schedule for its publications necessitated the discontinuance of the Board's monthly bulletin. The new arrangement has met with great favor. Its greatest appeal lies in the rapidity with which valuable information is transmitted to officials scattered throughout the State.

ILLINOIS

The Department of Public Health reports recent activities in vital statistics, communicable diseases, sanitation, laboratories, child hygiene, public health education, tuberculosis, venereal diseases and research.

Vital Statistics: Illinois has been admitted to the United States Birth Registration Area for the year 1922.

The Department is obtaining a more complete registration through (a) periodic inspection by Field Agents of all obstetrical hospitals of the State; (b) revision of the form of stillbirth certificate, making it similar to the U. S. Bureau of the Census standard; (c) frequent prosecutions of violators; (d) simplifications and improvements in methods of registration of births occurring prior to the passage of the Vital Statistics law; (e) an auxiliary classification code covering all deaths involving automobile accidents which indicates combinations of pedestrians killed, skidding, collision, overturning, resultant fire or asphyxiation or traumatism from broken glass, etc.; and (f) more uniform observance of the Coroner's Act by calling attention of local registrars and coroners, each time a medical certificate is received in cases referable to the coroner.

Communicable Diseases: The State Department of Public Health and the Illinois Tuberculosis Association have adopted a practically uniform physical examination record card to be used in the schools of the state by these two organizations. It is hoped that the American Red Cross will use the same card or one approximately similar in the near future, thus making a uniform examination record throughout the State.

Typhoid fever cases are released after two negative specimens of urine and dejecta; and in the case of food handlers—after four negative specimens, one week apart.

District Health Superintendents are checking all cases of active tuberculosis removed from sanatoria, learning the social history of the home and taking

measures for preventing infection of children in such homes.

This Division, in co-operation with the Divisions of Tuberculosis, Child Hygiene, Public Health Nursing, and Division of Sanitation, has divided the state into ten regional districts, each under a regional chairman. The district health superintendents, nurses and other officers of the Department, in co-operation with local organizations, are laying special stress upon the necessity of adopting a "safe milk" ordinance, as a result of which the model ordinance suggested by the Department has been adopted in a number of cities.

A vaccination notice, to be sent to parents and guardians on the reverse of which will be found "School Vaccination Certificate" has been adopted and is being distributed.

See also "Laboratory."

Sanitary Engineering: New activities during 1922 have included malaria-mosquito control, summer resort and bathing-place sanitation, and a start on inspection of milk.

Complete malaria-mosquito control was supervised at Carbondale, the first city to undertake systematic mosquito control in the state, and malaria-mosquito surveys were made at other cities in southern Illinois preliminary to control measures next or in future seasons. The work at Carbondale reduced the number of cases of malaria from an average of 250 during preceding years to 19 for 1922.

A detailed inspection was made of all property bordering on the Upper Fox River and connecting lakes in northern Illinois which is one of the most important summer-resort sections in the State because of its natural

beauty and proximity to Chicago. Over 1,500 pieces of property were inspected and follow-up action will be taken in order to eliminate existing pollution of waters dangerous to bathers and prevent new pollution and protect drinking water supplies at cottages, boarding houses, hotels, etc.

An inventory by means of a questionnaire was made of the milk pasteurization plants in the State preliminary to inspections of the conditions and methods of operation of such plants as other sanitary engineering work permits.

At the close of the year arrangements were being made to advise and assist cities in rat-extermination campaigns.

Laboratory: For the Wassermann test, Kolmer's acetone insoluble antigen has been adopted along with his suggestions for a standard technique. A plain alcoholic extract of beef heart is run with the Kolmer antigen.

Arrangements have been completed to send a field laboratory to some of the smaller cities in the State not provided with laboratory facilities to make laboratory tests on milk to improve the quality of the supply.

For the differentiation of smallpox and chickenpox, a laboratory test has been devised and mailing containers distributed for the submission of specimens.

See "Research."

Child Hygiene: A campaign for "Safe Milk" has been carried on in which the following items are especially emphasized: (a) the education of producers and consumers of milk in the production of safe milk by proper pasteurization, and (b) a drive to secure the passage in every city of 5,000 inhabitants and upward of the Model Milk

Ordinance. Instructions on the importance of safe milk as a food for children has been strongly emphasized at baby conferences throughout the State.

The Division has increased in connection with the physical examinations of school children particularly in rural districts.

Public Health Education: A number of special pamphlets have been issued by the Division of Public Health Instruction, namely, Instructions to parents in regard to diphtheria, the value of the Schick test, and prevention through toxin-antitoxin; a suggested Model Milk Ordinance; a circular on prenatal care, and one on the conduct of baby conferences. This literature has been developed in symposium form, each subject being treated in popular language.

A new emphasis has been placed on personal contact in health education, several programs embracing a series of public meetings held in various communities of a given county—each series covering a period of one week—have been arranged and carried out.

Education in the matter of birth registration has been materially aided through the co-operation of the Federation of Women's Clubs.

Lectures have been given before county teachers' institutes on health subjects, especially training teachers in the use of Snellen's chart and in testing the pupils' hearing.

In an endeavor to promote the annual physical examinations (or oftener where needed) the Department has carried on an examination of adults at five of the larger municipal, county and state health exhibits.

See also "Child Hygiene," and Venereal Disease."

Tuberculosis: Tuberculosis has been materially reduced through a campaign against bovine tuberculosis in Illinois conducted by the Bureau of Animal Industry, U. S. Department of Agriculture, and the Illinois Department of Agriculture, in conjunction with the drive by the Department of Public Health for a "Safe Milk."

A physician especially trained in tuberculosis sanatorium administration and in the diagnosis and care of the tuberculous has been appointed to the position of Supervisor of County Sanatoria and Dispensaries; a survey is now being made of such institutions in the State.

See also "Communicable Diseases."

Venereal Disease: Owing to a closer check-up by sanitary inspectors of the Division of Social Hygiene, more prompt and conscientious reporting of venereal diseases has been effected; this has been facilitated by the division of the state into six regional districts and the personal contact with physicians and druggists resulting therefrom.

New rules and regulations relative to the reporting of venereal diseases have been promulgated.

The purchase of new films portraying social hygiene subjects have greatly enlarged the educational facilities.

See also "Laboratory."

Research: Research work has been conducted by the Division of Laboratories on the Widal test in relation to tuberculosis, preserved cultures for use in the Widal test, the relation of the Schick test to scarlet fever, the etiology of scarlet fever, the differentiation of smallpox and chickenpox by laboratory methods, the intradermal test for the early diagnosis of whooping cough.

KANSAS

The State Board of Health reports recent activities in administration, child hygiene, public health education, and public health nursing.

Administration: At the last annual meeting of the State Board of Health, the Board by resolution created a Division of Public Health Nursing and authorized the employment of a State Supervising Public Health Nurse and three field advisory nurses.

Child Hygiene: Last summer, the Director of the Public Health Laboratory, co-operating with the Chief of the Division of Food and Drugs and this latter division's field food inspector, made a milk survey in twenty cities in Kansas with a view of stimulating milk control by municipalities, the final objective being to carry out the program of the Division of Child Hygiene in the reduction of infant mortality by improving local milk supplies. As a result of this work, milk ordinances have been passed and a number of municipalities and regular local milk inspection work established.

Public Health Education: An extension course in public health is being offered to health officers. This course includes all the various aspects of public health relating to the education of health officers and sanitarians, and is particularly designed to educate the part-time health officer. Three lessons a week are issued three weeks before the Annual School for Health Officers and Public Health Nurses. It is, therefore, designed that the extension course will terminate in the annual school.

Public Health Nursing: See "Administration."

LOUISIANA

The State Board of Health reports recent activities in administration, child hygiene, and research.

Administration: Intensive rural sanitation work has been organized and is now being operated in six parishes of the State. This service includes a full-time health officer, public health nurse, one or more inspectors, and an office force. The work is jointly financed by the local unit, International Health Board, U. S. Public Health Service, and the State Board of Health.

Malaria control has been extended until it now includes six local communities, with three to be arranged for. These campaigns are also financed by the above named organizations.

Child Hygiene: The Bureau of Child Hygiene has employed a public health nurse who will give assistance to the public health nurses of the Parish Health Units and who will carry on work now being planned in two or more cities in the State.

Research: Considerable investigation has been made relative to the *Aedes aegypti* as a carrier of Dengue fever and possibly Yellow Fever. The investigation concerning a new species of *Anopheles* has been completed and illustrated data is now ready for the press.

MASSACHUSETTS

The Department of Public Health reports new activities in communicable diseases, sanitary engineering, laboratory, child hygiene, public health education, tuberculosis, venereal diseases, food and drugs, and research.

Communicable Diseases: A new epidemiological study has been made of

secondary infections from diphtheria occurring in the same household or at the same street address from which a previous case has been reported. For the year 1922 a total of 1,206 secondary cases were found in the State, exclusive of Boston. Of these 930 were under 15 years of age and some 508 occurred in the same family or household within which a case of diphtheria had been in existence for at least four days.

See "Laboratory."

Sanitary Engineering: See "Research."

Laboratory: A special capillary tube has been substituted in the Schick outfit to insure more exact delivery of the contents.

The heated toxin control is supplied already diluted. Diphtheria toxin-antitoxin is being made by the new formula of Park and Banzhaf, containing .1L plus dose.

A number of studies have been made by the water and sewage laboratory in regard to methods of determining the pollution of air near oil refineries, and of finding means by which odors can be prevented from escaping these refineries.

Child Hygiene: The maternal and infant hygiene work has been extended, and the following working program adopted: (1) investigational service, including field studies of maternal and infant deaths and a study of the maternity hospital situation, (2) public health nursing service, including surveys of local child hygiene activities, advice as to their extension or improvement, and conferences for nurses, and (3) informational service, including the use of literature, letters, moving pictures, lectures, newspaper material, and conferences for mothers.

For this work a personnel of three physicians, a supervising nurse and five child hygiene nurses, a statistician and a publicity worker has been added to the Division.

Public Health Education: The State Department of Education and the State Department of Public Health have held joint conferences on school hygiene for teachers and nurses. Maternal and infant hygiene conferences for nurses have been held by the Department of Public Health in various centers of the State.

See "Child Hygiene."

Tuberculosis: Special emphasis is being laid on the discovery of tuberculosis in children. School children, ten per cent or more underweight are being examined and facilities for the diagnosis of early tuberculosis are being provided.

Venereal Diseases: A special investigator is visiting all the druggists in the State in order to obtain their co-operation in the Department's program by discouraging counter-prescribing and sale of quack medicines for the treatment of venereal diseases. The courts are also being visited, that the officials, judges, clerks, and probation officers may know of our program and require examination of all sex offenders.

Foods and Drugs: An investigation has been carried out relative to the composition of double strength tincture of ginger which is the only variety that can now be sold in accordance with the regulations of the U. S. Revenue Department. This work will be published by the American Chemical Society.

A special investigation of certified milk has been made which resulted in recommending to the legislature a change in the statute.

A new act, relative to the sale of coal, gives the Department the right to seize and destroy any coal not fit for ordinary use. Under this act which has recently gone into effect, the Department has seized about 1,000 tons of material containing about 70 to 96% of shale, the balance coal. Under the law, analyses are being made for local authorities and expert witnesses are being furnished to testify in the courts on prosecutions.

Research: The Lawrence Experiment Station has been working on a new method of purifying water. The process consists of loading the sand of a slow sand filter with ordinary coagulants used in mechanical filtration but operating the filter at slightly more than the usual sand filter rates. Several large cities in Massachusetts are considering adopting this method.

MICHIGAN

The State Department of Health reports recent advances in administration, communicable diseases, sanitary engineering, laboratories, child hygiene, public health education, and institutional health administration.

Administration: Pending the 1923 legislative session, the provisions of the Sheppard-Towner Law were accepted by the Governor. The already existing Bureau of Child Hygiene and Public Health Nursing was reorganized July 1, 1922; a physician was appointed Director and a nurse Assistant Director, the latter to supervise the public health nursing activities in the state.

A combination of the traveling clinic and the full time lecturers was effected September 1, 1922, with the object of doing more intensive work in the localities visited. An organizer for

the traveling unit was put in the field and an infant unit added to the clinic.

Communicable Diseases: More effective co-ordination between the morbidity and vital statistics and quicker action in following up unreported cases of communicable disease, has been made possible by the transfer of the vital statistics from the Department of State to the Department of Health which was done by the 1921 legislature.

The checking back of all positive laboratory Wassermann and gonorrheal findings for reports has done a great deal to bring up the entire matter of venereal disease reporting, as a report that is secured after correspondence or a visit from one of the representatives of the Department usually results in a far better understanding of the purpose and intent of the law by the physician and his better co-operation in the future.

The activity of the Bureau in following up every epidemic or even a few cases of typhoid fever with a vaccination campaign has resulted in the immunization of a very large number of persons. During the epidemic at Ontonagon (a city of 1,800 population) last spring, in which there were sixty-five cases reported, eight hundred vaccinations were completed, and as a result of this constant effort many thousands of persons in Michigan have been immunized against typhoid fever and with the result that not only has the number of cases been reduced but the number of potential foci has likewise been greatly lessened.

Sanitary Engineering: Recent legislative enactment has made it possible to issue orders to several municipalities that they must construct sewage disposal plants for the protection of the streams against gross pollution.

Laboratory: The largest single advance that has been accomplished is the introduction of the Kahn test for the control of the serum diagnosis of syphilis. Experience gained with over 23,000 Kahn tests, 8,000 of which have been reported to physicians parallel with the Wassermann test, has lead to the following conclusions: (1) The laboratory diagnosis of syphilis based on the combined results of the Wassermann and Kahn tests possesses a higher degree of accuracy than that of the Wassermann test alone, (2) The Clinical application of the Kahn test both in the diagnosis and treatment of syphilis compares favorably with the Wassermann test, (3) The simplicity of the procedure of the Kahn test makes it readily applicable as a routine procedure in a public health laboratory, (4) the employment of the Kahn test as a check on the Wassermann test will help reduce the element of skepticism associated with the older test.

Child Hygiene: A co-operating state health committee consisting of the state presidents of the women's groups that urged the passage of the Sheppard-Towner Law, was formed. County units of the same groups are being organized to further the work of the Bureau in the counties having no other functioning health committees or organizations.

The State has been divided into five nursing districts with a resident nurse in each district; the first activity of the nursing directors was the making of surveys.

An infant clinic was added to the traveling unit with a pediatrician and infant clinic nurse in charge.

Infant conferences were conducted at county fairs, and the usual educational work through addresses, literature and a series of letters for expect-

ant mothers has been carried on. A tabulation of births in Michigan for 1921 was made to determine the percentage of births attended by physicians, midwives or others. A survey of the maternity bed capacity of the State has been begun.

Public Health Education: The outstanding addition to Bureau procedure has been the routing and organizing for the "traveling health institute" made of of the three unit clinic, two full time lecturers and a field organizer. The institute unit is assigned at the request of local groups, for a one or two weeks' schedule in a county. The organizer visits the community and helps to arrange for the lectures and clinics. The lecturers precede the clinic, leaving a county as the clinic enters it. The present clinic is made up of a tuberculosis unit, a children's unit and an infant unit.

See also "Child Hygiene."

Institutional Health Administration: The system of medical supervision that has been instituted under the direction of the Department includes a complete physical examination for every inmate upon admission to the institution, surgical and dental care, intravenous administration of salvarsan for syphilitic cases, and a classification of inmates on the basis of mentality. In addition to the examination that the inmate receives, he is given the blood Wassermann test for syphilis, inoculation against typhoid fever and vaccination against smallpox; the younger age groups receive the Schick test for diphtheria and the immunization of positives against diphtheria.

A staff of four dentists working in the twelve institutions gives operative care, an examination of every inmate,

and to the younger age groups, prophylactic instruction.

Under the direction of a committee of state psychiatrists and psychologists, intelligence tests have been given to inmates in five institutions.

MINNESOTA

The State Board of Health reports recent advances in administration, communicable diseases, sanitary engineering, child hygiene, public health education, public health nursing, venereal diseases, and research.

Administration: A full-time county health unit was established April 1, 1923, in St. Louis County, through aid given by the International Health Board of the Rockefeller Foundation. A full-time county health officer has been appointed who is assisted by four public health nurses. The county health officer has jurisdiction over eighty-seven unorganized townships, and by virtue of his appointment as agent for the State Board of Health he will supervise the local boards of health work in five cities, nineteen villages and sixty-nine organized townships—the city of Duluth not included. The Sheppard-Towner program will be emphasized.

A Division of Child Hygiene was created by the Board in April, 1922, with a full-time director. (See "Child Hygiene").

The Minnesota Legislature considered, but did not pass, the bill providing for compensation of typhoid carriers whose opportunity to earn a livelihood is interfered with in order to protect the public against spread of infection.

The Legislature passed a law authorizing the State Board of Health to adopt and enforce reasonable regula-

tions concerning the construction, equipment and maintenance in respect to sanitary conditions of lumber camps; and other industrial camps; general sanitation of tourists camps, summer hotels and resorts in respect to water supplies, disposal of sewage, garbage and other wastes and the prevention and control of communicable diseases, but no appropriation was granted to carry on the work.

Communicable Diseases: Investigations have been begun to test the efficiency of the "Larson ring test" for tuberculosis.

See "Administration."

Sanitary Engineering: A new bulletin has been prepared by the Division of Sanitation entitled "Water Supplies and Sewerage Systems for Municipalities" which contains detail instructions for the submission of plans and specifications on new installations and information on features to be avoided in the construction of water supplies and sewerage systems. Typical defects and their correction are illustrated with cuts and drawings.

Information has been collected on the condition of tourist camps throughout the State, and some regulatory work will be undertaken on tourist camps and industrial camps during the year. (See "Administration.")

Research work has been completed by the Division on certain phases of a study on the effect of processing, especially pasteurization, on the creaming ability of milk. Further experiments on this subject are being undertaken in co-operation with the Dairy Division, U. S. Department of Agriculture.

Child Hygiene: Very early the Minnesota legislature accepted the provisions of the Sheppard-Towner law and ap-

pointed the State Board of Health to administer the law. The State Board of Health, in April, 1922, created the Division of Child Hygiene as its agent in carrying out its provisions. This division was organized in July, 1922.

The division has a director, who, in addition to the usual relationship to the Executive Officer and the State Board of Health receives the advice and suggestions of a state advisory board created for that purpose. This board consists of four men and five women representing the various educational, medical, nursing and women's organizations of the state. This board represents the potential co-operative agencies of the state whose assistance so often is needed in the educational projects of the division.

One of the first acts of this state Advisory Board was the creation of county administrative boards consisting of five members whose function is to administer the Sheppard-Towner law in the counties, in co-operation with the division and subject to the state and Federal laws and to the regulations of the State Board of Health. The personnel of these boards includes the county health officer, the chairman of county commissioners, a physician and two women members.

A program was adopted covering the field of the hygiene of maternity and infancy. Of the projects in this program the following are in actual operation:

1. The division has prepared a correspondence study course of 15 lessons, which is given weekly to whatever women in the state may apply for it. It is issued through the Extension Division of the state University. It may be taken by individuals or by a class

under the leadership of a public health nurse or physician.

2. A series of 9 prenatal letters have been provided for the instruction of expectant mothers whose names are reported to the division upon card forms supplied in quantity to public health nurses and physicians throughout the state.

3. The division is actively co-operating with educational institutions throughout the state in the incorporation of a course in Mothercraft in the eighth grades or beginning high school years.

4. A sterile obstetrical package including the minimum amount of supplies for a normal delivery has been prepared and its adoption widely secured throughout the state.

5. Contacts with public health school and city nurses throughout the state are maintained by the division through a Superintendent of Public Health Nursing. In this particular field, the division is attempting to secure by means of uniform report forms, quarterly conferences with nurses throughout the state, etc., a more uniform and consistent method of incorporating infant and maternal hygiene work in the activities of public health nursing.

6. The division is preparing a statewide program for the demonstration of such methods of infant care and feeding as are calculated to prevent, in so far as possible, the regular annual summer increase in the infant mortality rates of the state.

7. The division issues a monthly news letter which is circulated among nurses, physicians and county administrative board members of the state. It is intended to stimulate an unifor-

mity of interest and method; it frequently contains signed articles by nurses in various parts of the state.

8. The division endeavors to make consistent use of channels of publicity as are afforded by articles in state medical and nursing journals and local presses of the state; and, as the occasion demands, by talks before Mother's Clubs and similar organizations, and through the distribution of appropriate literature.

9. The division is also provided with a Ford car equipped with a generator, so that a projectoscope may be used in the showing of motion pictures in rural communities.

10. A limited number of prenatal clinics have been arranged for throughout the state.

Public Health Education: See "Child Hygiene."

Public Health Nursing: See "Child Hygiene."

Veneral Diseases: The laboratory has undertaken to run Wassermann tests on a considerable proportion of the sera received by it, according to a modification of the Kolmer technique, as well as by its own routine technique, and is now preparing for presentation by the director, the results of an extensive piece of research in this connection. Early last fall Wassermann tests were run on exudate sera from initial lesions in a considerable number of suspected cases of syphilis. The result of this study which has been published indicates the practicability of using this procedure as an aid in the diagnosis of primary syphilis, and it is hoped that a suitable mailing container can be prepared which will enable physicians in rural districts to submit initial lesion serum for the Wassermann test.

The laboratory has also done a very valuable piece of research in determining the best time of running Wassermann tests on blood serum. Conclusion has been reached that no blood is reliable for Wassermann tests after it is four days old.

Research "See Sanitary Engineering" and "Venereal Diseases."

MISSISSIPPI

The State Board of Health reports recent advances in administration, child hygiene, and public health education.

Administration: See "Child Hygiene."

Child Hygiene: The Legislature has accepted the provisions of the Shepard-Towner bill, and a Division of Maternity and Infant Hygiene has been established in the Bureau of Child Welfare. The state has been divided into four districts with a supervising nurse in charge of each territory. In addition to the supervising nurse there is also a special nurse employed who works in co-operation with the Bureau of Venereal Diseases with a view of making a careful survey of health conditions that prevail among the midwives of the state. The midwives are visited in different counties and an effort is being made to determine the number of those that are in need of medical attention especially with reference to luetic infection. A number of counties are also being surveyed and a systematic campaign is being conducted by county nurses in maternity and infant hygiene. The plan of work contemplates making a state wide campaign for educating the mothers and the people generally relative to the conditions that prevail and in a number of counties intensive work is being done so that a compara-

tive point of view may be determined with reference to actual conditions in certain counties as compared with other sections of the state.

The program of the division of maternity and infant hygiene which has been arranged includes the supervision and direction of special nurses in the field, whose duties are to be as follows: (a) Investigate, instruct, issue permits and further supervise midwives with the co-operation of the county health officer, (b) Lectures and demonstrations to groups of mothers and other interested individuals, (c) Supervisory care of women during pre-natal, natal, and lying-in period, (d) Instructions with reference to care and feeding of infants and pre-school children, and (e) Organization of local committees. By carrying out this program the division hopes to accomplish: (a) A decrease in the number of cases of ophthalmia neonatorum, blindness, material invalidism, infant and maternal deaths due to ignorance, carelessness, and neglect before, during and after child birth, (b) Raising the health standards of mothers in rearing and training children, and (c) More complete birth registration.

Considerable emphasis is being placed upon the problem of under-nourished children. A division of nutrition has been established in the Bureau of Child Welfare for the purpose of enlisting the interest of mothers and people generally in the under-weight and under-nourished child. A supervisor of the division of nutrition has been selected who is especially trained for this work. The work is projected through the field health program of the State Board of Health and an effort is being made also to utilize all voluntary agencies such as the American Red

Cross, Parent-Teacher Association, and women's clubs in giving the malnourished child proper attention. The program which has been arranged for this work is as follows: (1) To supervise generally the nutrition activities of the bureau, (2) to supervise nurses or others qualified in the formation and development of a nutrition program, following the physical examination of school children, pre-school children and babies, in those counties having child welfare units, rural sanitation units, full-time health officers, active nursing services and upon request in other counties and communities as time permits. The work as planned is intended to embrace: (1) the regular weighing and recording on the weight records, of all school children, (2) advocating the milk drinking habit for all children, including milk delivery at schools, (3) Schools lunches improving those brought from home, and starting hot lunches at school, (4) Organizing and conducting "Growth Classes" and "Mother-Child" conferences for underweight children and babies, and (5) Educational work, talks to parents, children, schools, clubs and other organizations.

Public Health Education: The activities in public health education have been directed in a somewhat more systematic way during the past year with special reference to (1) Newspaper health service, (2) A field demonstration car using moving picture reels on health subjects, and (3) special educational work in the control of malaria under the direction of a field representative who is a physician; considerable attention is being paid to the program which is especially designed for the schools.

During the summer months, all of

the teachers' normals are visited and lectures given on the subject of malaria and an exhibit shown demonstrating certain facts essential in anti-malaria work.

Special emphasis is being placed upon malaria control work at the present time. An effort is being made to extend the operations throughout the entire state, using certain counties for demonstration purposes. The plan of conducting this work has been changed from that of giving particular attention to demonstrations as applied to towns and cities to that of a county wide program. It is believed that the success of the work will depend upon making the county a unit and extending the activities from county to county and upon an intensive plan.

See also "Child Hygiene."

MONTANA

The State Board of Health reports new activities in administration, vital statistics, sanitation, child hygiene, and public health education.

Administration: The State Legislature recently passed an Act "to prevent procreation of hereditary idiots, feeble minded, insane and epileptics who are inmates of custodial institutions by arranging to provide for eugenic sterilization of such inmates." By this law the executive officer of the State Board of Health becomes chairman of the State Sterilization Board the duty of which involves supervision over all matters pertaining to the Sterilization Law and also approval of all legal acts of sterilization.

Vital Statistics: Montana was admitted to the registration area for births on January 1, 1922.

Sanitary Engineering: Question-

naires were sent out during 1922 to all health officers of the state regarding the sanitation of tourists' camps and this material is now on file in the Board of Health.

Child Hygiene: The Sheppard-Towner Act was accepted by the Governor of Montana, January, 1922, and in May, 1922, a new program was introduced in the Child Welfare Department. By consent of the Federal Board a certain amount of school work was permitted. The program consisted of an active educational campaign in which the Federated Women's Clubs assisted; the establishment of Maternity and Child Health Centers, and the preparation of certain publicity material such as prenatal lessons and letters to midwives, etc. A series of community surveys was undertaken throughout the state by the Federated Clubs under the direction of the Child Welfare Department. Nurses employed by the Department were used in large part as organizers of local health work.

The 1923 Legislature accepted the provisions of the Sheppard-Towner Act and appropriated money to match the federal gift.

NEBRASKA

New duties involving the administration and supervision of the maternity and infancy work provided for under the Sheppard-Towner law have been undertaken by the Division of Child Hygiene.

The bureau of Public Health reports new activities in administration, vital statistics, child hygiene, and public health education.

Administration: The Division of County Health Work has been placed in charge of a former full-time county

health officer who has taken the short, intensive course for health officers at Johns Hopkins.

A chief has been appointed for the Division of Vital Statistics.

Vital Statistics: Pursuant to the law passed in 1921, sub-registrars of vital statistics have been appointed in practically all school districts of the State. These sub-registrars receive 25 cents for each certificate of birth or death received and transmitted to the county health officer, who acts as registrar for the county. The health officer in turn forwards the certificates to the State Bureau of Public Health, at the end of each month, after he has made a copy to file with the county clerk. A form of certificate has been devised, acknowledging the appointment of the sub-registrar and carrying on the reverse side a set of instructions in both Spanish and English, regarding his duties. There was a moderate increase in registration for 1922 over that of 1921.

Child Hygiene: A set of instructions for prenatal care, for infants under one year and for children one to three years of age was printed and issued in connection with the Sheppard-Towner work. These instructions are mailed to the parents of each child whose birth is registered with the Bureau of Public Health.

Two nurses have been employed under the Sheppard-Towner act, one doing maternity and infant hygiene work in at least four counties each year, while the other is a midwife instructor who travels from county to county holding classes and demonstrations for midwives. These midwives are then turned over to the local health authorities for supervision.

Public Health Education: See "Child Hygiene."

NEW YORK

The State Department of Health reports new activities in administration, vital statistics, communicable diseases, sanitary engineering, laboratory, child hygiene, public health education, public health nursing, venereal diseases, and research.

Administration: The Public Health Council, during 1922, established qualifications for public health nurses. Under these qualifications public health nurses appointed by a county or municipality after January 1, 1924, must have completed a course of instruction in public health nursing approved by the Public Health Council.

Several amendments were made to the Sanitary Code, the chief one being the amendment to Regulation 14, Chapter III, giving cities of the first class the power to provide for additional grades of milk and cream subject to the approval of the Public Health Council.

A new regulation was added to Chapter II of the Sanitary Code requiring physicians to use a prophylactic agent in the eyes of the newborn.

Regulation 2 of Chapter I was amended by including therein as reportable diseases, Vincent's angina and Malaria.

Regulation 2-a of Chapter II dealing with the submission of specimens to the laboratory in cases of communicable disease was amended by adding thereto the following diseases: Anthrax, Asiatic cholera, diphtheria, epidemic cerebrospinal meningitis, streptococcus sore throat, malaria, paratyphoid fever, plague, tuberculosis, typhoid fever and Vincent's angina.

Regulation 41-a of Chapter II requiring the reporting of outbreaks of

diarrhea was amended so as to include outbreaks of epidemic jaundice.

The Public Health Council caused a study to be made of the existing provisions regarding the education of both postgraduate and undergraduate medical students in hygiene and preventive medicine.

Vital Statistics: A special report was issued during the year on maternal mortality in New York State which contained a number of graphic charts exhibiting the mortality from all puerperal causes combined and puerperal septicemia separately, in each county and municipal subdivision of the State. This was furnished to health officers, public health nurses, obstetricians, and others interested directly in the work of prevention of maternal mortality.

The Division of Vital Statistics also prepared a great quantity of statistical material on the populations of various sections of the State and their mortalities for the use of the Milbank Memorial Fund in selecting areas for its proposed public health demonstrations. This work was made possible by the aid of special employees compensated by the Milbank Fund. This statistical material is the most comprehensive on tuberculosis ever compiled in this State and will appear early in 1923 in the form of a special pamphlet.

Communicable Diseases: Practical demonstrations in Schick testing and toxin-antitoxin immunization have been given in a number of cities and villages as an attempt to popularize toxin-antitoxin prophylaxis.

See "Administration."

Sanitary Engineering: Special investigations have been made of the causes of tastes and odors in water supplies resulting from the chlorination of public water supplies derived

from streams polluted by coal tar wastes.

Special work has also been done in the investigation of malarial conditions in portions of Dutchess and Westchester counties.

See "Laboratory."

Laboratory: The sanitary chemical laboratories have co-operated with other Divisions in experimental work to determine the efficiency of different types of milk pasteurizers and in an investigation of a commercial sterilizing plant where horse hair from countries where anthrax is more or less prevalent is treated.

Certain research studies begun in 1916 in connection with the production of antimeningococcus serum which resulted in the establishment by the Public Health Council of a minimum standard of potency for serum sold in the State, have been continued, and have this year brought about the establishment of a new and much more stringent standard.

The investigation into infectious jaundice has yielded useful data for further study.

Research work has been done in connection with the complement fixation test in tuberculosis which promises to give results of definite practical value.

Child Hygiene: The Davenport-Moore legislative appropriation for the safeguarding of maternity and the protecting of the health of infants and children has made possible a widely increased service in the Division of Maternity, Infancy and Child Hygiene. Eighteen additions have been made to the staff, including 1 obstetrician, 1 pediatrician, 1 organizing field agent, 1 nutritionist, 1 chauffeur, 10 nurses detailed from the Division of Public Health Nursing, 2 stenographers, and

1 clerk. Eight additions to the staff of the Division of Vital Statistics have been made as an aid to this work.

It is the policy in this work to stimulate local communities to extend or organize their activities through their own local organizations and to assist them in this work. The various forms of service extended to local communities in assisting them in this work are as follows: The appointment of regional consultants in obstetrics and pediatrics, demonstration nursing service; consultant nursing service; pre-natal service; surveys and studies; organization service; co-operative plans for women's organizations; extension course for nurses, nutrition service; breast-feeding demonstrations; publicity, including revision of literature and preparation of new literature and films, radio talks, papers, addresses, press notices, co-operation with other organizations, and the organization of the office administration.

See "Vital Statistics."

Public Health Education: Arrangements have been made with the General Electric Company of Schenectady, N. Y., by which the Division of Public Health Education has been able to broadcast by radio a five-minute message on some phase of public health of general interest.

The circular "Milk and Its Relation to Public Health" has been revised during the past year.

The editors of employees' magazines have been put on the mailing list to receive all news letters, and health notes have been supplied to various health and medical journals.

A correspondence course for public health nurses on the same general plan as the course for health officers which the Department instituted a number

of years ago has been developed with the co-operation of University and Bellevue Hospital Medical College. The details of the work have been under the charge of the latter, the syllabus for use in the course being developed in the Division of Public Health Education.

A special effort has been made for the Healthmobile to reach rural audiences with films showing how at relative small cost health conditions may be improved on the farm.

Public Health Nursing: Progress in the work of the Division of Public Health Nursing has been marked by an increase in the staff, and by the adoption of a standard uniform for State Supervising Nurses.

Since May, 1922, ten nurses have been added to the staff for specialized work in maternity, infancy and child hygiene—one as instructor to nurses in maternity hygiene, two as supervisors of child welfare stations and seven for demonstrations in child welfare, children's consultations, prenatal care and other varied activities.

See "Administration," "Child Hygiene" and "Public Health Education."

Venereal Diseases: The activities of the Division of Venereal Diseases have been specially directed toward the development of a program for the detection and treatment of cases of congenital syphilis. The Division is attempting to keep the physicians of the State in touch with the latest reports on diagnosis and treatment of congenital cases; obstetricians are being advised of the very satisfactory results in preventing congenital infections by the proper treatment of the pregnant mother, and pediatricians are urged to undertake the newer methods of treat-

ment on the infected child after it is born.

The educational activities of the Division have been directed more specifically toward the adolescent youth.

See "Administration" and "Child Hygiene."

Research: See "Laboratory."

NORTH CAROLINA

The State Board of Health reports new activities in administration. A change of policy in administration is being undertaken. The personnel and funds of the central office are being decreased and the field resources and personnel correspondingly increased. Whole time county health work is being extended by the addition of full-time county health departments. Central administrative bureaus, organized for special functions, are being done away with, and the work converted into one with general functions upon geographic divisions.

NORTH DAKOTA

The Department of Public Health reports new activities in administration, communicable diseases, child hygiene, and public health nursing.

Administration: A bill has been passed by the Legislature which provides for a new board or advisory health council of five members to succeed the present State Board of Health composed of three members. The bill also provides for a full-time health officer.

Communicable Diseases: The manner of reporting communicable diseases has been changed from a monthly to a weekly plan.

Child Hygiene: A Division of Child Hygiene and Public Health Nursing was created in January, 1922. A di-

rector was employed in September, and preliminary work, and some field work has been done.

Public Health Nursing: See "Child Hygiene."

ONTARIO

The Provincial Board of Health reports recent advances in administration, communicable diseases, sanitary engineering, laboratory, industrial hygiene, child hygiene, public health education, public health nursing, tuberculosis, venereal diseases, and research.

Administration: The regulations for sanitary control of lumber, timber and mining camps, including standard camps for employees, have been revised; a Chief Sanitary Inspector for camp supervision in Northern Ontario has been appointed.

Additional venereal disease clinics have been established.

An investigation has been made of the English system of public health administration, and a report made.

Communicable Diseases: An appropriation has been made for a traveling diagnostician and radiologist in tuberculosis, and arrangements have been made with sanatoria for the establishment of additional local clinics for diagnosis of tuberculosis.

Sanitary Engineering: Special studies have been made in fly control.

Research work on the effect of residual free chlorine and chemicals used in municipal water works upon fish hatcheries has been undertaken in the Experimental Station.

Experimental studies have been made of the activated sludge treatment of sewage, and of the value of such sludge as a fertilizer.

Laboratory: The central laboratory has begun the manufacture of phenarsenamine (606) for free distribution.

Public health diagnosis and research work has been undertaken on the gonorrheal complement fixation test, and the arsphenamine treatment of syphilis.

Nine branch laboratories for public health diagnosis have been established.

Industrial Hygiene: An examination has been undertaken of a number of painters to determine the incidence of lead poisoning, and of a number of furniture finishers to determine effects of inhalation of volatile substances, such as benzol, benzine, turpentine, etc.

An investigation to determine the effects of painting by spray machines and lead paint generally has been undertaken, and investigation has also been made to determine the effect produced by the inhalation of hard rock dust among miners in Northern Ontario gold mines.

A compilation has been made of the literature on lead poisoning.

Child Hygiene: New work in the Division of Maternal and Child Hygiene and Public Health Nursing consists of: (a) the development of well-baby clinics, (b) the extension of public health nursing service, including propaganda to induce municipalities to establish public health nursing service, and (c) extension service in antenatal care of mothers.

Public Health Education: The radio is being used in disseminating information on public health.

Public Health Nursing: See "Child Hygiene."

Tuberculosis: See "Communicable Diseases."

Venereal Diseases: See "Laboratory."

Research: See "Laboratory" and "Sanitary Engineering."

OREGON

The State Board of Health reports new activities in administration, vital

statistics, communicable diseases, child hygiene, public health education, public health nursing and venereal diseases.

Administration: A full-time health program has been placed in operation with one county in active operation and four others about to be installed. In each county the work is carried on by a director, two public health nurses, and a laboratory technician. The State Board holds meetings in each district to hold conferences with local officials and to advise on sanitary improvements.

Vital Statistics: The reporting of births and deaths has been stimulated by interesting local officials and furnishing them with corrected reports. All reports are made in triplicate, one for the census bureau, one for the local official, and one to take the place of the card index. This was a measure of economy but has been found to answer the various purposes efficiently.

Communicable Diseases: Co-operating with the U. S. Public Health Service with franking privileges has stimulated reporting and speeded up the receipt of these reports. Encephalitis lethargica has been added to the reportable diseases.

Laboratory: A laboratory epidemiologist has been added to the staff of the Board.

Child Hygiene: The Bureaus of Child Hygiene and Public Health Nursing have been consolidated with an addition of a medical director to be associated with a State Advisory Nurse. The State matches the full amount appropriated by the Sheppard-Towner Act.

Public Health Education: A news letter is being furnished the press and all interested in public health work weekly.

Public Health Nursing: See "Child Hygiene."

Venereal Diseases: One clinic is being operated under the auspices of the University of Oregon Medical School and the State Board of Health. Arsphenamine is furnished to all indigent cases.

SASKATCHEWAN

The Bureau of Public Health reports new activities in administration, and sanitary engineering.

Administration: As a move towards the advancement of public health in Saskatchewan a clinic for the examination by physicians of men, women and children was held at the Summer Fair in the city of Saskatoon last year. All examinations were made free of charge except in cases where X-ray photographs were taken when a nominal charge of \$1.00 was made.

The arrangements included a dental clinic, a fully-equipped laboratory and an X-ray instrument with a trained technician in charge. Particular attention was given to degenerative diseases, such as tuberculosis, heart disease, Bright's disease, cancer and other diseases of adult life and those found to be in need of treatment were urged to consult their own physicians at the earliest possible moment.

The examination of people from rural districts was specially stressed as they have not the same facilities as the urban population for medical examination. The work was entirely diagnostic and the results were such as to justify its continuance.

Sanitary Engineering: In past years, it has been the practice to send inspectors from the Bureau to investigate insanitary conditions as these were brought to notice. Last year the Divi-

sion of Sanitation divided the Province into four sanitary districts and an inspector was allotted to each district. Each of these inspectors made a complete survey of the sanitary conditions in his area including rural water supplies, milk supplies, the collection and disposal of household and human wastes, and the protection of foods from infection. These officials visited the local councils, health officers and other authorities, informed them of their powers in enforcing the health laws, recommended methods of obtaining safer milk, water and food supplies, and suggested practical measures which were calculated to reduce the death rate from typhoid fever, tuberculosis and other infectious diseases.

Many new problems in rural sanitation and conditions contributing to the spread of disease have been brought to light as a result of this systematic inspection of the Province, and these problems and conditions are being studied and information prepared in bulletin form which it is hoped will add materially to the comfort and good health of the people of Saskatchewan and reduce still further the number of deaths from preventable diseases.

SOUTH DAKOTA

The State Board of Health reports new activities in child hygiene. A Division of Child Hygiene began service April 1, 1922. The State Legislature has passed the Child Hygiene Appropriation Bill requesting ten thousand dollars annually to meet the provisional allotment of the Federal Sheppard-Towner appropriation.

TENNESSEE

The State Department of Public Health reports new activities in admin-

istration, laboratory, and child hygiene.

Administration: The health organization of Tennessee has been changed by the Sixty-third General Assembly from a State Board of Health with a Secretary to a State Department of Public Health with a Commissioner in charge.

See "Child Hygiene."

Laboratory: On October 15, 1922, a fully-equipped and adequately-manned diagnostic branch laboratory of the State Department of Public Health was organized at Knoxville to serve the medical profession of East Tennessee.

Child Hygiene: A Maternity and Child Welfare Division was created and began operation in June, 1922, through Federal funds provided by the Sheppard-Towner Act. The personnel of this Division consists of a Director, three full-time field nurses, and twelve part-time field nurses.

WASHINGTON

The State Department of Health reports recent advances in vital statistics, communicable diseases, sanitary engineering, laboratory, child hygiene, and research.

Vital Statistics: Methods of registration, tabulation and storing of certificates have been greatly improved. Information of any character is now obtainable, almost at a moment's notice, and the statistics now are not merely figures, but give valuable information which hitherto has not been available.

Communicable Diseases: Special campaigns have been put on for the control of smallpox and diphtheria. Incidence of smallpox has been reduced 50 per cent through a vaccination campaign; only one death occurring as compared to 10 deaths of the previous year.

In most of the large cities and sev-

eral of the small ones general campaigns have been put on in immunizing school children against diphtheria by use of toxin-antitoxin. A reduction in the incidence of diphtheria over 1921 and the reduction of deaths is practically 10 per cent in each instance.

Sanitary Engineering: Special attention has been given to municipal water supplies and sewage disposal systems. As a result of this work, numerous cities have obtained pure water on installation of some form of chlorination apparatus so that now over half of the population of the state is drinking pure water, certified as such by the state department of health, and which complies with the U. S. Public Health Service standard. Only the supplies of rural communities remain to be investigated.

Laboratory: See "Research."

Child Hygiene: A Division of Child Hygiene has been created by law, which will soon be in operation.

Research: The laboratory has undertaken an exhaustive study of oyster beds in the State, which has resulted in a great aid to the oyster industry. The laboratory is also engaged in work to determine how much organic matter is necessary in a water supply to support life. A complete report on this

subject will probably be available next year.

SUMMARY

Twenty health organizations in the states and territories of the United States, and the provinces of the Dominion of Canada, have reported recent activities in their various subdivisions of health work since the 1922 meeting of the Conference. A tabulation of the various organizations reporting, and the subdivisions of health work on which they have provided information is given in the table at the end of the report; these, when arranged according to the largest number of health organizations reporting new activities in any given subdivision, assume the following order: (1) child hygiene, (2) administration, (3) communicable diseases, (4) sanitary engineering, and public health education, (5) laboratory and research, (6) vital statistics, public health nursing, and venereal disease, (7) tuberculosis, (8) foods and drugs, and (9) industrial hygiene and miscellaneous activities.

Committee:

H. A. WHITTAKER,

Chairman.

E. G. WILLIAMS,

C. W. GARRISON.

TABLE SHOWING RECENT ADVANCES REPORTED BY HEALTH ORGANIZATIONS FOR 1922

State, Territory or Province	A	VS	CD	SE	L	IH	CH	PHE	PHN	T	VD	FD	R	M
Alabama	×	×	×	×	×		×	×	×	×	×	×	×	×
Arkansas			×	×										
California			×	×										
Illinois		×	×	×	×			×		×	×		×	
Kansas	×							×	×					
Louisiana	×							×					×	
Massachusetts			×	×	×					×	×	×	×	
Michigan	×		×	×	×			×						
Minnesota			×	×				×	×					×
Mississippi	×							×	×		×		×	
Montana	×	×						×						
Nebraska				×				×						
New Mexico	×	×						×						
New York	×	×	×	×	×			×	×		×		×	
North Carolina														
North Dakota	×		×	×	×			×	×					
Ontario	×		×	×	×	×		×	×	×	×		×	
Oregon		×	×		×			×	×		×			
Saskatchewan	×			×										
South Dakota								×						
Tennessee	×				×			×						
Washington		×	×	×	×			×					×	
Total	15	7	12	11	9	1	18	11	7	4	7	2	8	2

A—Administration
VS—Vital Statistics
CD—Communicable Disease
SE—Sanitary Engineering
L—Laboratory
IH—Industrial Hygiene
CH—Child Hygiene

PHE—Public Health Education
PHN—Public Health Nursing
T—Tuberculosis
VD—Venereal Disease
FD—Foods and Drugs
R—Research
M—Miscellaneous

Mr. Whittaker: You may all remember that in 1918 this committee decided upon a program of collecting information which they felt might be available or of value to the various states. We have subdivided the divisions of public health activities into fourteen heads, all of which I will not attempt to enumerate which are included in the report. This year there are twenty states and provinces that provided the committee with information in sufficient time to be incorporated in this report. It is the feeling of the committee that if this information is to be of any value to the organization that it naturally should be placed in their hands at this time so they will not have to wait until the report is published which would be so late it would be of very little significance at that time. Three states have reported since this report was put in its present form. I wish to take this occasion to thank the states for the way they are now sending in their information which requires probably not more than half of the editing which was originally required in getting up this material. When we first started in we sometimes received the annual reports of the health department which were practically impossible of reviewing and abstracting to put in form that when con-

sidered would be satisfactory. I would like at this time to ask the Conference for any criticism that they may have to make on the method of collecting this information by the Committee in the past or to offer any suggestions that may occur to them for any committee that may act in this capacity in the future. It seems to us on the Committee that it becomes more or less a routine procedure, that we follow rather a definite line and possibly the information is not of the value we anticipated it might be. If that is the case, I sincerely hope that the Conference will express itself because it is a very laborious task, if I admit it myself, and it is also costly to collect this information in time and energy and also finance, to get the material in its present form.

COMMITTEE ON PUBLIC HEALTH NURSING

BY A. J. CHESLEY, Minnesota,
Chairman

Dr. Dickie could not attend this Conference, therefore no proper report

has been formulated. As Chairman, I will try to cover some points brought out by correspondence with Dr. Dickie and Dr. Kelley, and I wish to thank Miss Stevens and Miss Fox, of the N. O. P. H. N., and Miss Haupt, Miss Houlton and Miss Hilbert, of the Public Health Nursing Committee of the Minnesota Registered Nurses Association, for ideas and counsel.

Dr. Dickie advocates uniform standards for public health nursing in the various states. The California State Board of Health requires a course of eight months in public health nursing. Dr. Dickie suggests that the requirements might be made full two years' course in a recognized school for public health nursing. Dr. Dickie states:

"The public health nurse is invariably placed in the field upon her own responsibility and it is impossible to give her direct supervision, therefore, she should be well qualified.

"The public health nurse needs supervision in my opinion, but it does not seem practicable to place supervision under one head because we have in California the municipal public health nurse, county public health nurse, industrial public health nurse, Red Cross and tuberculosis public health nurse, and various non-official agencies. Therefore it seems necessary to place the standards of public health nursing sufficiently high to cover the lack of supervision."

Dr. Kelley states his views as follows:

"1. We are seriously in need of a clearer definition of public health nursing.

"2. It is especially necessary to have clearly in mind the distinction between public health nursing as carried on by

private agencies and that carried on by official agencies.

"3. Public health nursing as carried on by private agencies, in the great majority of cases, includes some form of bedside nursing.

"4. The probabilities are that, for a long time to come, if not always, this combination is going to be necessary and desirable.

"5. Official public health nursing at the present time is, to a considerable extent, confined to the larger boards of health and does not, as a rule, include bedside nursing.

"6. There is however, an increasing number of smaller places taking up the work through the so-called community nurses and in these cases the official agencies are including bedside nursing.

"7. A history of public health nursing in this country has shown that ordinarily the work has been started by private agencies only to be taken over in many cases by official agencies.

"8. This being the case, it is highly essential that the distinction between what is advisable for an official agency to do and what is advisable for a private agency to do be kept clearly in mind.

"9. In general it may be stated that the part of public health nursing, which is to be paid for by municipal funds, should be of the kind which could be given free to all the citizens by the official health agency.

"10. If this is correct, it would seem to follow that the work carried on by the official agency should be strictly educational in nature and should not include medical treatment or bedside care of any kind.

"11. It further follows that visiting nurse associations starting work which

may ultimately be taken over by the municipality should clearly understand this fundamental distinction between the sort of work which they can do and that which they may properly turn over to official agencies.

"12. To sum up the matter, private agencies doing public health nursing may properly carry on all kinds of educational work in conjunction with bedside care. The official agency should confine itself to such activities as well-baby clinics, school nursing, infant hygiene work and the employment of public health nurses in the control of communicable disease. Prenatal work might well be a function of either the official or unofficial body. Maternity care, being almost exclusively bedside care, should be left with the private agencies."

The Public Health Nursing Committee of the Minnesota Registered Nurses Association gave me some of the following information:

About 12,000 nurses are engaged in public health work, where at least 50,000 are needed. Villages and rural districts show greatest need. In Minnesota, for example, Professor Winslow's estimate is practically met in Minneapolis with one public health nurse to each 3,000 people. But altogether in Minnesota there are about 300 public health nurses. Minneapolis, St. Paul and Duluth, whose combined population is less than one-third the population of the state, have 175 nurses. The state at large has but one nurse to about 13,000 people.

Many of these rural nurses do general community service; some do school work under school authorities; some are Red Cross workers partly paid by the county, and others do general

county public health work. The situation changes constantly. The city nurses are well supported. Their working programs are carefully outlined, generally understood, and funds are assured from private or public sources; so the cities neither need nor desire supervision from outside. But the rural nurses do not enjoy the advantages of the city nurses. Occasionally a nurse, who has done excellent work from our point of view, is discontinued because she has offended someone with political influence, and then for a time a community will be without nursing service.

It is too soon to lay down standards of qualifications and requirements for public health nursing. Experiments are being made in the effort to overcome administrative difficulties connected with situations where bedside nursing is done and nurses paid wholly or in part by public funds. For example, in Oklahoma City the nurses have been organized recently into a single group to do every type of public health nursing. We often have been told of places where a family becomes the victim of several different varieties of nursing and social visitation and scarcely has time to eat between visits. This plan of a single organization to cover every type of service is being tried out in an effort to avoid that sort of thing. An experiment is being made in Minneapolis. The city health authorities are financing two nurses. The Visiting Nurses Association, which is supported by a community fund, pays another, and the Infant Welfare Society, a third, while the salaries of the supervisor and the clerk are divided equally between the Visiting Nurses Association and the Infant Welfare Society. These nurses will do all types of public health nurs-

ing work in a given section of the city. The results of the work in this section will be compared with other sections where the nursing service is under the old plan of separate jurisdiction. New York City and New Haven have begun similar experiments, and a definition of public health nursing may well await further information based upon this work. Similarly, a definition of the requirements for public health nursing positions might well await.

Difficulties of transportation and shortage of nurses for every type of work in rural districts often compels the adoption of a generalized nursing program which requires a nurse trained to do bedside work, at least in emergencies, and for the purpose of demonstration. Such a nurse, the Rockefeller report calls "the generalized nurse, one who is equipped with a rigorous training in bedside work, further supplemented by special studies along the lines of public health and social service, employing these abilities to establish herself in the community as its trusted advisor, its best friend, caring for the sick, securing medical aid, counseling as to hygiene, solving difficulties of a hundred sorts with the touch of a practiced hand."

In Minnesota, Dr. Hartley asks public health nurses to undertake his program for maternal and infant hygiene with their other work because it is a popular subject and will extend the nurses' influence. Our nurses believe that this generalized program, which requires a nurse trained to do bedside work in emergencies, as well as for demonstration purposes, must necessarily be continued for some time.

While it is desirable to standardize and define public health nursing, every

state must size up its own situation and do the best it can under the circumstances, keeping in mind this ultimate plan. Some official relation between state boards of health and public health nurses, no matter how paid, is necessary for a good working program. In Minnesota, unofficial contact alone is possible under existing laws. It is provided for in the County Administrative Board on Maternal and Infant Hygiene of five, at least two members being women. The county health officer is chairman; a physician, selected by the county or district medical society, and one of the county commissioners, with the two women, make up the board. The women are selected by a committee representing the County Public Health Association, County Parent-Teacher Association, County Child Welfare Board, Federated Women's Clubs, and League of Women Voters. The Administrative Board plans and supervises the Sheppard-Towner work in the county.

The nurses carefully planned a legislative campaign in 1923, hoping to obtain an entirely new registration law which would cover the relation between public health nurses and the State Board of Health. The legislature refused to pass it, although the bill as finally presented provided for only the following type of supervision:

"A list of nurses whose qualifications for public health duties have been approved and certified by a committee composed of three registered nurses; one representing the Faculty of the Course in Public Health Nursing of the University of Minnesota; one, the State Organization for Public Health Nursing; and one the State Board of Health; shall be furnished upon re-

quest by this Committee to any Board authorized to employ public health nurses."

And that

"Such nurses shall receive, upon request, the aid and advice of the State Board of Health in regard to nursing problems."

Our present law provides that

"The Board of County Commissioners may detail any such public health nurses to act under the direction of the county superintendent of schools, the county child welfare board or the county health officer."

To Miss Stevens and Miss Fox I am indebted for the following:

"Qualifications and Requirements for Positions in Public Health Nursing"

"The points to be considered in deciding the question of qualifications for Public Health Nursing positions are:

1. Academic Background.
2. Professional Education.
 - (a) In training school.
 - (b) In Post-Graduate instruction.
 - (c) Through experience.
3. And in combination with 1 and 2, personal qualifications which are essential.
4. The character and amount of professional educational supervision afforded by the organization directing the work.

"1. Academic Background."

"It is generally recognized that at least a full high school education or its equivalent is needed by the nurse in the Public Health field.

"However, no National or State professional Nursing Organization has yet been able to require this for membership to these organizations.

"It may not be possible to set any requirement higher than that required for registration or licensure in any given province or state, although in many private organizations, requirements even up to full high school have been maintained.

"2. Professional Education."

(a) Training School.

"Requirements for membership in the National and State Public Health Nursing Organizations require: 'Graduation from a Training School for Nurses connected with a general hospital having a daily average of 30 patients or more and a continuous training in the hospital of not less than two years. Training shall include practical experience in caring for men, women and children together with theoretical and practical instruction in medical, surgical, obstetrical and children's nursing. Training may be secured in one or more hospitals.'

"In those states where nurse practice laws have been secured, registration shall be an additional qualification."

"The requirement for *eligibility* for membership is based on what is considered a minimum and would therefore seem to be a minimum qualification. In states where the registration law required less, such a standard might be difficult to enforce.

(b) Post Graduate Instruction.

1. 8-9 Month University Courses.

"A post-graduate course of 8-9 months in Public Health Nursing, as now carried on in various Universities of the United States and Canada, is considered most desirable. Such an 8-9 months period has been found to be the minimum of time in which the fundamental subject matter, and neces-

sary practical experience can be covered.

2. *Post-Graduate Instruction less than the above.*

"A four-months program of instruction consisting chiefly of field experience under good educational supervision. Such a program should be carried on according to the standards set in the field experience of the 8-9 months university courses.

(c) *Through Experience*

"1. As an alternative to such a formal program a year's experience on the staff of a well-organized public health nursing association which affords good teaching and supervision might be considered acceptable.

"2. If requirements based on organized instruction or experience as above mentioned are more than can be required it might be possible to require a 2 months program of experience in practical field work in the department of instruction of a well-organized public health nursing association. (This experience is increasingly being afforded nurses in their undergraduate nursing courses.) And in addition, before appointment, a period of observation, etc. of from two weeks to one month of a good example of the type of work to which the nurse is to be assigned, would considerably benefit the nurse who has had only the limited two months experience.

The Problem.

"It is obvious that there is a wide divergence between the academic and professional qualifications which are desirable for public health nursing positions, and the professional and academic qualifications which can be required.

"Hence, in order to carry on a rea-

sonably satisfactory piece of work two things are necessary:

"1. A consistent raising of the required qualifications.

"Nursing administrators and supervisors by keeping in close touch with the nursing associations and educators, can gradually set better standards for public health nursing positions as such requirements can be met by a sufficient number of nurses. The demand for better qualified nurses on the part of employers will serve to stimulate and help the schools to provide the required preparation.

"2. A program of education as a part of the administration of this service.

"An educational program in an administrative organization is probably best carried out when the nursing department is organized under the direction of a properly qualified P. H. N. director, assisted by supervisors prepared in the special phases of the nursing program. The educational work can be carried on:

"1. Through personal visits, demonstrations, conferences and individual advice.

"2. Through organized reading and study.

"3. Through institutes, etc.

"Before many years it is to be hoped that a number of schools will offer the education for public health nursing which has been outlined in the recent report of the Rockefeller Committee on Nursing Education. Such a program of instruction (other things being equal) should provide nurses well qualified for P. H. N. positions.

"*Requirements for Supervisors and Administrators* should be considered in the light of the best qualifications along

the lines indicated, with the added requirements of experience, and personal qualifications of the sort to warrant executive and teaching positions."

This is not an official recommendation of the N. O. P. H. N., although it has the personal approval of a number of the officers.

Your Committee recommends that the Conference consider the advisability of arranging with the National Organization of Public Health Nursing for a Joint Committee on Public Health Nursing on the plan of the Joint Committee on Health Problems and Education of the American Medical Association and National Education Association.

Also, that as state branches of the National Organization of Public Health Nursing are formed, similar committees be organized in each state by the state health authorities and the state branch of the N. O. P. H. N. for further study of the following problems:

1. Qualifications and requirements for positions in public health nursing.
2. A clear definition of the duties of the public health nurse.
3. The problems of administration.

DISCUSSION

Miss Elizabeth Fox, American Red Cross: Mr. President, I like the recommendation that winds up the committee report very much. I think there has been too much discussion in our own professional group when there are real problems that are affecting both of us very much. I think we can settle our differences of opinion and add a great deal to each others' information and each other's wisdom, if we can have such a joint committee which can present a point of view on problems of both groups and then come to some common recommendation. I feel as certain as one person speaking alone may that the executive committee of the N. O. P. H. N. will be delighted to

concur and I sincerely hope that this body will adopt it.

Dr. Chesley: May I ask a question? How many states already have organized state branches and how many are in the process of organization?

Miss Fox: At the last meeting in Seattle last spring the constitution of the N. O. P. H. N. was changed so we might organize branches. I think four branches have been officially accepted and six or eight are now being considered and several are pending.

Dr. Hague, South Carolina: It is again a pleasure to see these later states struggling towards the light of civilization. In South Carolina we have settled the question of the nurses' relation to the State Board of Health and their relation to supervising nurses and voluntary agencies in the state and they are working along harmoniously. We have a standard and we accepted the standard offered to us, we have conformed to it and the only difficulty we find is to find enough nurses that have that standard. That is the main difficulty all over the United States. You can fix your standards but you cannot find anybody who will come up to them.

Dr. Love, Colorado: I should like simply to ask what arrangements, if any, can be made to take care of the nurses who desire to do public health work but do not have the means for coming to the institutions in the Middle West or East to get the required special training. I have taken this matter up with the supervisor of our public health nursing which by the way is a title more than anything else at the present time. How can we take care of these girls, how can we let them do public health nursing when they are not able to go East to take the training. I have suggested that we make some arrangements whereby we can give them at least some sort of a certificate so they can take up certain branches of the work at some later date, hoping to develop in the West an institution that will give that proper training. We have had one in Colorado but it is no longer in existence. We want the nurses to be especially trained but it is not possible to send them East to get that training. What can we do to help them in the meantime?

The President: In your neighboring states, Oregon and Washington, there are organizations; there are excellent courses for public health nurses and the Red Cross in certain instances is able to give them scholarships. Where it is impossible to do that it is better to get the scholarships through Rotary Clubs or local organizations. From my own experience and it has been one of the most interesting problems that has confronted every public health administrator, I feel sure, it is far better not to have a public health nurse for a while, many of the communities in Colorado and Kentucky having gotten along without them for some seventy-five to one hundred years, than to get incompetent, half-baked nurses who will immunize the community against public health nursing. I believe the time has arrived when it is just as important for our profession to recognize that the public health nurse has now arrived, has a definite profession, that the nurses need training and have the right to that training as to believe that the physician has a right to training. We will not let a man practice medicine merely because he is poor or merely because he does not know enough to be a competent physician, but we require him to be competent and I believe the nurses desire us to make the same requirement in their profession. I believe it would be better for the states to make progress slowly in placing public health nurses than to place those not trained at all. For Dr. Love's special information, I would say that the University of Louisville, Kentucky, has a very excellent School of Public Health of which I have the honor of being Dean. The same thing applies to a number of institutions in this immediate neighborhood, all of them and any of them recommended by the N. O. P. H. N., giving a kind of education and training that really qualifies these women to do what I believe is one of the most effective parts of our public health program. I think we have already arrived at thinking that it would be better not to add to our nursing personnel those who are not qualified and trained but to let the schools try out those who never will be qualified rather than to try them out on the community.

Dr. Hayne: I move the adoption of the recommendation of the committee relative to the proposed committee. Carried.

REPORT OF COMMITTEE ON RELATION OF MEDICAL MEN AND HEALTH OFFICIALS

BY W. S. RANKIN, M. D.,
*North Carolina State Health Officer,
Chairman*

In considering the relation of medical men and health officials the following questions are encountered:

1. What is the field of medicine?
2. What is the field of public health?
3. Do these fields merge?
4. If merged, what understanding and relation should be established between medical men and health officials with public welfare the controlling motive?

WHAT IS THE FIELD OF MEDICINE

Medicine as it is practiced today by the rank and file of the medical profession concerns itself more especially with the diagnosis and treatment of diseases that have advanced to a stage where they incapacitate the afflicted and interfere with productive efficiency or the enjoyment of life. Most of these diseases occupying the time and thought of the medical profession have reached what Sir James MacKenzie classifies as the "advanced stage" and many have approached the "final stage"; few diseases, relatively speaking, are treated by the profession in the "early stage", and fewer still in the "predisposing stage".

Nevertheless, it is true that the medical profession today is giving more treatment for diseases that are in the early stage and to patients who are predisposed than ever before. There is a strong, irresistible, unceasing current in medicine to move from the obviously pathological toward the more physio-

logical conditions of life. This tendency of medicine to find its patient before irreparable damage has been done and to treat disease in its more curable stages has been made possible (1) by a larger appreciation on the part of both physician and patient of early treatment as contrasted with late treatment, this larger appreciation of early treatment having resulted from the greater emphasis that has been placed upon disease prevention as compared with the treatment of disease during the last thirty or forty years; and (2) by easier means for reaching the patient because of (a) improved communication, telephones and roads, (b) improved transportation, automobile and electric car lines, and (c) enlarged hospital facilities with segregation of the sick.

In certain special fields of medicine this tendency of medical thought and practice to emigrate from the pathological into the physiological phases of vital conservation is well under way. Medical textbooks teach that pregnancy is a normal state of being, but medicine has taught for years that every pregnant woman is entitled to and should have medical care in order to anticipate, treat and prevent dangers which threaten the expectant mother and her child. Infancy is also a normal state of being, but a state of being of enfeebled vitality, and a condition of life where danger threatens even more than in a normal pregnancy. The pediatricians in the more enlightened centers are now giving most of their time and thought to the care not of pathological infancy but of physiological infancy. Medicine is now beginning to recognize and admit that adult life, especially adult life after middle age, is sufficiently liable to dangers which may be an-

ticipated and prevented to justify and require general periodic medical oversight. It is very clear, then, that the field of medicine is rapidly enlarging itself to include not only treatment of present disease but anticipatory treatment of disease liability. Anticipatory treatment has for its motive and purpose prevention: it is prevention.

Prevention is much newer as a practice than as an ideal in medicine. Medical ideals, the larger objectives of the profession, have always been the prevention of disease. The pride of the profession, the respect in which the public holds it, the distinction which it has over the cults, is that through its discoveries and their application smallpox and typhus and yellow fever have been banished and diseases in general have been greatly reduced: the efficiency and happiness of life and longevity have been definitely and measurably advanced. The "Principles of Medical Ethics," embodying a statement of principles and ideals of the organized medical profession of the United States, in chapter three, relating to "The Duties of the Profession to the Public" especially and urgently advises the members of the profession to take an active and advanced position in their communities, their states and their Nation in proposing legislation for disease prevention, in supporting officers for the enforcement of such legislation, and in every possible way preventing disease in the interest of the public welfare.

To summarize, the field of medicine, in both its practice and its claims, insists and rightly insists on including within its activities both the cure and the prevention of disease, and the unmistakable tendency

in medicine is to increase its work in the prevention of disease as compared with its work in the treatment of disease.

WHAT IS THE FIELD OF PUBLIC HEALTH

Public health in its early years had as its main object disease prevention. Public Health movements started usually as popular reactions against some particular disease epidemic and the primary idea in the minds of those originating and supporting the early efforts was to prevent a recurrence of an epidemic that had imposed a heavy toll in loss of life. With such an initial impulse the idea of disease prevention grew and expanded to include communicable disease control in general as we now understand it and involving: (1) quarantine, as the term is ordinarily understood, (2) segregation and hospitalization of communicable infection, (3) destruction of morbid agents, such as insect carriers (flies, mosquitoes and lice) and food poisons, (4) control of public water supplies, (5) sanitary supervision of milk supplies, and (6) production and use of biological products, antitoxins and vaccines, in immunizing susceptible populations.

From such activities, relating more clearly to communicable disease control, it was an easy and necessary step to activities involving disease detection and treatment where treatment was a necessary end to prevention. In malaria, hookworm, trachoma, venereal disease and tuberculosis the treatment of the infected persons became an essential agency of prevention in order to forestall the transfer of infection to others. Such treatment is approved under a resolution adopted by the House of Delegates of the American

Medical Association at the St. Louis meeting in 1922 and published in volume 78, page 1715, of the *Journal*.

With these early efforts in disease control there developed an enlarged sense of responsibility for the protection of health and life against all of its liabilities including both anticipated and present danger. The public has as a result of this growing sense of responsibility for the protection of human life greatly increased its financial support of medical colleges, hospitals and diagnostic laboratories; furthermore, the public have recognized through surveys made by private and official agencies the great unsupplied need for more adequate medical treatment, and health departments, reflecting this popular interest in more adequate general treatment of disease, have assumed a larger interest in arranging with the medical profession for the treatment of those diseases the prevalence of which constitute large social handicaps.

The development of public health, originating with the idea of prevention, has enlarged itself to include cure, just as medicine, beginning with cure, has grown in the reverse direction to include prevention, so that today we find the forces of prevention and cure met, intermingling, and without such understanding and organization as will establish a proper relation of the two forces.

DO THE FIELDS OF CURE AND PREVENTION MERGE

The forces of medicine and public health cannot be separated along lines of cure and prevention, as neither medicine nor public health can afford to renounce its interest in either treat-

ment or anticipated treatment. Cure and prevention merge by as imperceptible gradations as physiology becomes transformed into pathology, as the new leaf of spring fades into the seared yellow leaf of autumn.

The merged fields of cure and prevention cannot be occupied by two separate, disarticulated forces, one representing the idea of cure and the other of prevention. Separation of forces means lack of understanding, absence of co-ordination between workers whose tasks are much the same; it means friction and conflict with resulting harm to both medicine and public health. Combination of forces means understanding, co-ordination and increased efficiency for both branches of medicine. Another reason, one of necessity, which requires public health to join with the forces of medicine is the size of the force of workers that public health would have to organize and train in order to encompass the vast problem of disease prevention and health promotion. One can get a quick, convincing view of the size of the force that public health would need to occupy simply the present field of untreated disease, by recalling the fact that the profession of medicine today is able to occupy about one-third or one-fifth of the field which in the interest of the public it should occupy. Public health must of necessity utilize the rank and file of the medical profession, the 150,000 doctors of this country, in performing the various items of work that enter into a public health program, or frankly and seriously consider a program of developing a separate and special force of from 150,000 to 200,000 workers.

The fields of cure and prevention are,

then, merged not only through the inseparableness of their problems, but under the necessity of being developed by a single well organized, co-ordinated force.

What Should Be the Understanding Between Medical Men and Health Officials with the Public Welfare the Controlling Motive

An understanding is necessary for the enlarged efficiency of both those who are engaged in private practice and those who are employed in public health. Such an understanding, when arrived at, will rest upon a division of labor. A proper division of labor will be predicated on the general principle that the members of the medical profession shall perform such items of public health service, both of a curative and a preventive character as their training and number make possible, for which they shall be paid a reasonable compensation, it being necessary to distinguish between rates for bulk work and individual case work, between wholesale and retail prices; and further, that health officials representing the public interest shall so organize and restrict their personnel as to provide for the medical profession rendering the aforementioned service, the health officials devoting themselves largely to either the enforcement or repeal of public health laws, particularly quarantine, and to passing upon items of service for which payment is claimed which has been rendered by members of the medical profession.

Under this sort of an arrangement members of the medical profession would, wherever their numbers make such service possible, be employed in Schick testing, in immunizing against typhoid and diphtheria, in vaccinating

against smallpox, in giving Pasteur treatments, in holding venereal disease dispensaries, in the detection and treatment of the common defects of public school children, in holding maternity and infant clinics and, especially, in doing much of the educational work of local boards of health through which all these activities and others are made possible.

The health officer would become the representative of the public whose first duty would be to enforce health laws, and whose second and larger duty would be to serve as an organizer of such social and professional machinery as is necessary to bring about the largest possible reduction in morbidity and mortality rates.

DISCUSSION

Dr. Freeman, Johns Hopkins University: The apparent conflict between the medical profession and the public health organizations constitutes one of the most important problems which must be met at this time. Fortunately, it is not everywhere as acute as it apparently is in Michigan.

There are a few facts which ought clearly to be kept in mind, however, in this discussion. The first, and one which should frankly be recognized, is that much of what health departments are doing at the present time excluding, perhaps, only general sanitation and directly preventive measures in communicable diseases, is work that the physician could do and perhaps should do, but which under present conditions he does not do. In the face of the need the health department perforce does things which the practitioner has not up to this time undertaken to do. In venereal disease, in tuberculosis, in child welfare, in mental hygiene, in school hygiene, and in fact in practically all of our modern service program, we are rendering distinctly clinical service which is entirely within the capacity of any well trained and alert physician to render but which, as a matter of fact, is not rendered except by the health organizations.

Leaving out of account those cases which

are frankly unable to pay for medical service, why should the health department be compelled to render distinctly individual clinical service?

The answer is to be found, it seems to me, in the fact that the medical profession, insisting as it does on the maintenance of the old individual relationship between the physician and the patient, is unable to render organized service and only organized service can adequately meet the present need.

Medical service, to be effective, must be available in the beginnings of a morbid condition, often before the patient himself is aware of his condition. Such service can not be rendered when the physician must wait until the patient realizes he is sick, or as often is the case, until he has made his own diagnosis. The relation of the physician to his patient must be a continuous service, not one taken up when the patient is convinced of his need and broken off at the termination of the acute condition.

In addition, medical service at the present time to be effective, requires the organized and co-operative effort of several kinds of specialists. It is no more logical to expect the patient to seek out voluntarily the various sorts of people needed to diagnose and treat his condition than it is to expect a man needing a new pair of shoes to gather his materials and go from one to another of the hundred or more different operatives who contribute to the making of his shoes, arranging with each one for the performance of his small part of the work, paying each one separately and hoping, somehow, finally to get his shoes finished. The assembly and organization of the various specialists needed for effective service is as necessary a result of specialization in medicine as it has proved to be in industry.

The real problem confronting the public health official at the present time, is that of securing for the people of his jurisdiction, organized, continuous, efficient and economical medical service. Once that is secured, most of his present difficulties will vanish; we shall have no further need for our present admittedly unsatisfactory arrangement of clinics, nurses and the like. We can then return, it may be, to the development of what is perhaps after all the true function of the health department, the

protection of the public health, by those means which require community as contrasted with individual action.

It is a fact beyond dispute, that if the one hundred and fifty thousand physicians in the United States exercise as they should and as they must, the true preventive relationship to their individual patients, the labor of the health departments will be vastly lightened and the public health vastly improved.

Dr. King, Indiana: I would like to say a few words in reference to the discussion of Dr. Olin and Dr. Freeman. I cannot quite see the point in Dr. Olin's discussion for it seems to me he has answered his own question very largely in saying that when you can analyze the opposition in the state of Michigan, you come to one man and feel like holding your nose. I think this will be found to be true wherever the question of state medicine has arisen in relation to public health work. You will find the greater part of the medical profession is right and has the right attitude but you will also find one or two men, or small groups of men, who are radicals and who are not logical in their attitude, and who make most of the noise and furnish a large part of the material and ammunition used by antis and chiropractors. A few days ago I had the rather doubtful pleasure of sending to the Editor of the Journal of the Indiana State Medical Society, a news letter which came from some organization in New York City, evidently financed by antis, and in this news letter an editorial from the Indiana Journal was taken bodily from its context and in this form was made the basis of an unanswerable argument against public health work and the medical profession. The Editor of the Journal had expressed some rather radical views in regard to what he called state medicine and the relation of public health work to this so-called state medicine, and in so doing had furnished the material for which the enemy had turned against the profession. I believe the great body of the medical profession, the men who are really doing things and the men who will represent the profession at the meeting of the American Medical Association in San Francisco next month, are not opposed to public health work and do not believe in the bogey of state medicine. It is our duty then as

public health workers to keep both feet on the ground, go on doing our duty as we see it and not to be too unduly exercised because of some petty opposition, nor because some members of the medical profession seem to be unable to distinguish between public health work and so-called state medicine. The medical profession today is undergoing a profound change. It is going through a period of transition and it is having growing pains. There is bound to be some friction, some misunderstanding and some criticism, because these things are inseparably connected with any permanent growth or development. It is my opinion, however, that out of these change of attitude, both on the part of the public and the medical profession will come a better, a more active and more logical medical profession, with a larger vision of the public need.

I think Dr. Freeman leaves out of account what to my mind is the most important element in this entire question, and that is, not what the medical profession is doing, not what might be accomplished by a greater organization, but that great moving force that eventually settles every question in this country, namely, public sentiment. When we talk in meetings like this of organizing something and handing it out to the people of this country, we fall as far from the mark as when the medical profession talks about state medicine. We must not forget that an intelligent public sentiment will eventually be turning the status, both of public health work and the medical profession in its relation to public health work and to the public itself.

Dr. Hayne, South Carolina: Referring to the argument of my distinguished friend from Baltimore I think he picked out one of the poorest illustrations that I can think of when he spoke of the old-fashioned shoe as compared with the modern factory shoe. The old-fashioned shoemaker knew the man's foot he was going to fit, he measured it carefully and if the man had corns or bunions, he made the shoe to fit the foot. The modern shoemaker does not come in contact at all with the feet he has to treat; just as the man making the shoe puts the leather and eyelets and all the two hundred different things into it, so does the modern doctor treat his patients, knowing only he needs eyelets or knowing when he needs eyelets or

when he needs leather but not knowing what kind of shoe he should give them. He has lost the intimate relationship that he used to have with the old-fashioned doctor just the same as the man has lost his intimate relationship with the shoemaker; that is the cause of the public distrust and antagonism toward the profession.

Dr. Chesley: Dr. Rankin, the Chairman, as usual did the work of the Committee, but as a member I tried to get some information for him. A questionnaire was sent to the nine members of the Minnesota State Board of Health, eight of whom are physicians; to the full-time Health Commissioner of Minneapolis; part-time Health Officers of St. Paul and Duluth, and certain medical health officers of smaller places. As all these men are or have been engaged in medical practice, their answers were of great interest to me, probably of more interest than to Dr. Rankin, because I know them personally and know the places where their work is done. Their answers to Dr. Rankin's inquiries varied. I am sure everyone tried honestly to give a full and frank reply to each question.

The President of the State Board of Health, who has acted as health officer for his county and for a small city and has been in practice for thirty-five years, during fifteen of which he has devoted approximately half of his time to public health and general welfare problems without salary, gave most interesting information. He said that people came to his office and he wanted to make proper physical examination and give them correct advice, but the people don't want it. They have ideas about what ails them. They want medicine for what they complain about, are willing to pay for it, but for nothing else. Yet the same individuals will go to Rochester to the Mayo Clinic or some other clinic at a distance, go through the long and detailed course of examinations without a murmur, pay the bill, accept the treatment, and praise the results. So it isn't the fault of the physician always that results are not what they should be.

Dr. Kelley, Massachusetts: I believe Dr. Rankin has covered about everything that I think I could suggest with reference to this subject and I think that he can alone get the credit for a very scholarly production. The sentiment incorporated therein

was concurred in by other members of the committee so that in that sense I think we stand thoroughly back of all the points made in the committee report, at the same time, making all due allowance for Dr. Freeman's and Dr. Hayne's ideas in making shoes. There is one fact that does occur to me with reference to the shoe analysis and that is that while I think that we can agree with Dr. Hayne that the very careful, high-class bootmaker considered all the anatomical variations of the client's foot, with all due respect to that good point, I want to point out that the mass of the public, before the days of machine-made shoes, did not get that kind of shoes at all; they got instead, shoes made by the old-fashioned method by which the right and left were the same. My grandfather said it was perfect hell until you got them broken in.

Dr. Hastings, Toronto: I do not know when I have listened to a more intelligent discussion by medical men and those in the field of preventive medicine, particularly, than that which I have listened to for the last half hour. There have been most valuable papers presented and I sincerely hope we will not do as we often have done in the past, thoroughly enjoy and appreciate what has been said, then go home and straightway forget all about it and not turn it into practical account. I think that, unfortunately, though we arrive at very logical and valuable conclusions at these meetings, yet we do not seem to fix these decisions permanently in our minds and turn them to practical account.

Sir James McKenzie in that very valuable work which we should all read and digest, "The Future of Medicine," has pointed out and emphasizes most of the points that have been touched on here tonight. There have been expressions here both this morning and tonight that indicate the difficulties that public health administrators have with the general practitioner. I am thankful to say that I have had very little trouble in that way and so well have I stood in with the medical profession that the Academy of Medicine made me an honorary member this winter so when we realize that we are engaged in putting forth every effort possible in our attempt to cut down their revenue, one can appreciate the broadmindedness and the real heart and soul that there

is behind these men and consequently I feel that we must stand by the medical profession. I think if we were to take a lesson from the Chinese custom, modify it somewhat, then the family physician would be secured by the various families at a retainer fee and he would be required to visit that family regularly, not wait for sickness, and look over each and every member of that family and therein fill the capacity of preventive medicine as well as curative. In this way get the cases in the earlier stages before any material damage has been done. I think that when the medical profession realizes that they are paid for preventing disease and not for curing it, and that the primary obligation is prevention, we will get rid of this awful fear and dread of state medicine. That is practically what state medicine would mean. It is on the same principle of health insurance. It would be up to every physician to do all he could to educate his clientele along the lines of prevention. This means education. We know the politicians are there to give the people what they want. We must devote all our energies to the educating of the people to whom we are responsible, to make them well-informed on public health matters and teach them the advantage of prevention over cure.

I was interested in Dr. King's remarks regarding iodine and goitre. There are many members of the medical profession that get into the rut; they do not attend any medical meetings or societies and they consequently are not familiar with the more advanced knowledge along these lines. I devote a good part of one of my public health bulletins to this very problem of goitre, its prevention and cure by iodine, recognizing as we all do that those of us living in inland towns far away from the sea where there is a limited amount of sea food, are likely to have a larger amount of goitre and larger percentage of those cases. It is unquestionable and a fully established fact that the thyroid gland requires that iodine and nature has made a wonderful provision there because it is capable of storing up enough iodine for three or four months. If the iodine is administered so that it can be assimilated it is perfectly safe; probably every two or three weeks,

or even once a month would be absolutely safe.

Dr. Paul Turner, Washington: Our relation with the medical profession is a very happy one and if I may take time, I will give you a little news and speak of what really did happen last year in the State Medical Society. If you will remember, Dr. Rankin gave a very excellent paper last year on contact with the medical profession from the health officer's standpoint. I was asked, as usual, to read a paper before the State Medical Society. I never read a paper before them, I chose to talk to them, so I made the basis of remarks Dr. Rankin's paper. There had been a certain amount of discussion of this at the previous meeting of the Association so that at the time I was talking, the delegation was discussing the very thing I was talking about. The result of that conference was that the State Society appointed contact committees for everything that pertained to public health, that is, they had a contact committee for child hygiene, a contact committee for public health nurses, and so on down the line throughout all our activities. This of course puts us in very close relation to the whole society because each contact committee has the power to act for the society with our Department, not only that, but we have a public Health League in our State and I know very well that that may sound like a bad proposition to certain of you for I believe that the public Health League has been at times more of a hindrance than a help but our League is composed entirely of friends of the medical profession. Doctors pay good money to this League and the least that any doctor pays is \$25 a year. There are men in the state that have paid \$500 a year to this League. The office of the League is two floors above our own offices so that we are in very close contact. Moreover the Public Health League has been delegated by the Medical Society to take care of the legal aspect of our public health matters; therefore, the State Society, through the League, and through the contact committee, is very close to the Health Department and conditions, as I say, as far as we are concerned, with the medical profession are very happy.

Motion carried to adopt report of Committee.

REPORT OF COMMITTEE ON INDUSTRIAL HYGIENE

DR. JOHN E. MONGER, Ohio,
Chairman.

After reading over the last two Annual Reports (1921 and 1922) of the Conference of State and Provincial Health Authorities of North America, the new Chairman would comment as follows:

The three questions set up by the Committee on Industrial Hygiene are quite apropos. The Chairman would suggest the addition of a fourth question to the effect: *Is the subject of occupational diseases a function for a State Department of Health?*

In attempting to add suggestions to the answers already supplied in the 1922 Report for the three questions previously proposed, I would state as follows:

(1) Industrial hygiene *is* a proper function for a State Department of Health because it deals with the health, welfare and industrial longevity of about 40½ million of the population (32½ million males and 8 million females) for the 8 to 12 hours out of the 24-hour day during which time most workers have but a limited control over their own environment and for which time a great amount of health education is highly desirable. The health aspects of the supervision of this vast number of the productive portion of the population, while under load, is a most important phase of the economics of national wealth, happiness and defense. It is believed that such responsibility should be left to those most familiar with health procedures, except that other divisions or departments of government may carry out administrative orders and compen-

sation matters. Furthermore, the last occupational mortality statistics for the country, compiled by the Census Bureau for the year 1909 shows at least six afflictions which have undue prevalence among industrial workers all of which are considered preventable, controllable, or greatly reducible. These with their percentage death rates, are, among males; tuberculosis (17½%); accidents (11.8%); pneumonia (8.5%); suicide (2.8%); typhoid (2.4%); poisoning (0.8%),—or a total of 43.8% of all of the deaths among occupied males. A similar 43.7% occurs among occupied females. In the female group tuberculosis itself ran 21% of the total. It may be said that, conservatively speaking, 50% of the deaths of industrial workers come under our usually accepted preventable groupings.

The significance of this is furthermore seen in the fact that over 60% of this mortality among males occurs before 45 years of age and over 75% occurs among females before 45 years of age. Again it is to be noted that consumption itself is the leading cause of death in 110 of the 140 occupations listed, in which 24 principal causes of death, other than by injuries, are listed and that where accidents head the list, as in coal mining and railroading, etc., consumption invariably stands second. The total preventable deaths among occupied persons each year in the country is estimated at 300,000 or approximately the same figures as the number of aliens admitted to the country under the immigration act. Add to the above the vast amount of disability from sickness and other causes with its associated dependency and burden, all of which is related to preventable disease and we have an impos-

ing array of material for answering *yes* to this question.

In regard to the second question, whether industrial hygiene should have a distinct position in the health organization it may be said that the subject is so intimately related to peculiar health matters like physical examinations, corrections of impairments, nutrition, health habits, recreation, etc., on the one hand, and the questions of the principles of sanitation, ventilation, toxicology, vital statistics and communicable disease on the other hand, that it should be either a Division in a State Department of Health or a Bureau under the Division of Administration, where it may make use of the other divisions and bureaus of the Department as required for the execution of its duties. The latter arrangement, that is, the Bureau in the Division of Administration, is probably the least expensive, since it allows of limited personnel which is usually all that is needed for the special studies which often occupy one line of research for weeks or months at a time and is probably the best form in which to start a movement for industrial hygiene in a health department.

In answer to Question III, What should the program incorporate? we make suggestions as follows: We endorse the four headings laid down for the program of the Division of Industrial Hygiene (p. 81, of the 1922 report) but believe that possibly all could be included in three headings as follows:

(1) *Advisory capacity*, especially to employers and also to employes, when opportunity presents. In Ohio we find that probably 90% of industrial health hazards brought to our attention through the reporting of occupational

diseases can be corrected by a program of suggestions to employers, so that only rarely is it necessary to turn matters over to the Department of Industrial Relations or other State Departments for departmental orders.

(2) *Research*, including surveys, special investigations, and studies of reports and records, using other departments, divisions and bureaus to assist.

(3) *Education and publicity* as already laid down in the proposed program. We emphasize the practice of designating to employers and employes their respective responsibilities.

The answer to our proposed IVth Question, "Is the subject of occupational disease a function of the State Department of Health?" is as follows:

We consider this to be the chief reason why a Health Department should take notice of the whole situation because: (1) Occupational diseases involve the *health* of workers; (2) occupational diseases are preventable to a very large extent; (3) occupational diseases are rarely simple or easily understood, and are often confused with other causes of disease so that considerable concentration on relative causes and effects make a specialized preventive-medical personnel essential; (4) the real solution of occupational disease is prevention rather than curative or compensative; (5) the correction of involved causes is more open to suggestion than to departmental orders; (6) the non-specific occupational diseases are the most important. (These include those diseases which emphasize themselves especially in connection with occupation such as tuberculosis, pneumonia, cardiac incompetency, rheumatism and musculo-osseous limitation of activities, nervous debil-

ity, etc. These are practically inseparable, except in degree, from similar afflictions in the population at large with which it is considered only health departments are competent to deal, and for which other departments of government have no machinery, and where the same would be duplication if they had. Even the compensation of occupational diseases does not as a rule, and probably never will, cover these non-specific afflictions). (7) The research nature of occupational diseases often demands the closest co-operation between medical men and sanitarians for which the Department of Health affords the best machinery. (8) There is less duplication of reports, controversies and special hearings, if occupational disease cases are left to health authorities rather than to lay departments. Such hearings are also very expensive. (9) Sickness and mortality in other related fields of health work are better controlled by medical than by lay machinery. (10) Community co-operation and education in such matters as physical examinations, correction of impairments, etc., all of which are so vitally connected with industrial hygiene, are better conducted and apt to receive more acceptance if promoted by the Department of Health.

Motion carried to adopt report of Committee on Industrial Hygiene.

REPORT OF COMMITTEE ON SCHOOL HYGIENE

DR. W. C. FOWLER, Dist. of Columbia,
Chairman

During the past year there have been notable evidences of increasing interest in the various ramifications of school hygiene. This has not been confined to official agencies but has been

demonstrated by a number of organizations engaged in child welfare work. It would lengthen this report unduly to go into the details of these endeavors; and we feel that it will be sufficient to refer you to the sources from which such information may be obtained.

Through the courtesy of the American Child Health Association, we are able to give a valuable list of reference reports. You are familiar with some of the papers mentioned by the Association; but we shall give the entire list as prepared by that organization and it is possible that some of the papers have not attracted your attention. They are:

Report of the Advisory Committee of the National Child Health Council.

Report of the Mohonk Conference of June, 1922.

Reports of the Joint Committee on Health Problems and Education of the National Education Association and the American Medical Association. This committee made two reports in 1922, one covering returns from questionnaires sent to 622 school superintendents in cities and towns in the United States with a population ranging from 2,500 up to the largest. The other report of the committee was on Health Improvement in rural schools. Copies of these reports can be obtained from Dr. Thomas D. Wood, 525 West 120th St., New York City. The price of each is 25 cents.

From the Detroit Department of Education may be obtained A Course of Study in Health Instruction for the Elementary Schools, and A Year's Experience with Nutrition Class.

The Board of Education of Trenton, New Jersey, has issued a tentative syllabus for the hygiene work in the schools.

Binghamton, New York, has published a pamphlet entitled "Health Education in the Binghamton Schools".

Cincinnati has a multigraphed draft of a course of study in health education for the schools of that city.

The New York State League of Women Voters has published a report on child health conditions in New York, which includes a report on school health work—140 pages, price 15 cents; and the National Child Health Council has a ninety page pamphlet on Child Health in Erie County, price 20 cents.

A report on Community Dental Service may be obtained from the Service Bureau on Dispensaries and Community Relations of Hospitals of the American Hospital Association, Chicago.

We would particularly suggest your consideration of the report of the Advisory Committee on Health Education, of the National Child Health Council. This has recently been published by the United States Bureau of Education, Department of the Interior, in a pamphlet entitled "Health of School Children."

We may add to the above list the pamphlet on Requirements for Teachers, issued by the State Board of Education, Virginia, in which there is a section devoted to the courses of health study necessary for teachers as a condition precedent for obtaining a certificate, and two pamphlets issued by the State Board of Health, Virginia—catechisms on health for primary students and grammar grades.

In the consideration of school health work two questions press for solution: one is the placing of responsibility or the division of responsibility as between the health authorities and the

school authorities; the other is the extent of the endeavor that should be entrusted to unofficial agencies.

We cannot overlook the development of this feature of health work. It is becoming more extended constantly. In addition to physical inspection and the inculcation of ordinary health knowledge, we are having health crusades, nutrition classes, correctional clinics, playground and recreational activities and other lines. There is not one of these ramifications that lacks appeal. They are all worthy efforts; but unless new and greater sources of revenue are made available, the older and more valuable lines of work may be subordinated to the new and untried. This condition invites the attentive consideration of conservative health officers if we are to maintain or establish a proper conception of relative values.

It may be helpful in connection with the consideration of the question of division of responsibility, so far as it effects official agencies, to cite the experience of one State where there has been no interdepartmental friction. The teaching of school hygiene is compulsory. The curriculum and the text books are approved by both the State Board of Health and the State Board of Education. The teachers are required to pass successfully examinations on: School hygiene, physical education and physical inspection. These curricula and examinations are to be jointly approved by the two State boards. These are the educational factors that are controlled jointly.

The same dual control is exercised over the functional operations. Teachers are required to inspect physically the school children; but the inspections are to be approved by the State Board of Health. The follow-up work is con-

ducted by the school nurse, who must be approved by the State Board of Health. The State supervisor, in charge of the work, is the joint agent of the State Board of Health and the State Board of Education, with salary and expenses jointly defrayed. When this supervisor, or a representative of the supervisor goes to a school, local health authorities cannot object because the State Board of Health is represented, and for the same reason, school authorities cannot object to a representative of the State Board of Education.

We have deemed it advisable to outline this method of operation because it stands the pragmatic test. Its practical operation for a year has developed no point of friction; and it is alike satisfactory to the health authorities and to the State Board of Education.

The other question is less easy to settle. In dealing with unofficial agencies or associations the personal element enters more largely than in official dealings where definite laws limit activities. The personal experience of any health officer might be valuable in its applicability to the guiding of tentative agreements or understandings; but such experiences cannot be accepted as conclusive.

There are, in fact, several angles to the question of unofficial effort. Official agencies cannot dodge their responsibilities or delegate their powers; consequently, it might seem that the control of any phase of health work in the schools or in connection with school children must rest with the constituted authorities; and, if that be recognized as true, the question at issue would seem to be the measure of initiative to be encouraged on the part

of private agencies and the proportion of direction to be left with them.

Even with this restriction, however, the committee does not feel competent to make a recommendation, but it does deem it proper to express the opinion that unofficial agencies are naturally more prone to experiment than are official agencies charged with definite responsibilities, that such experiments are necessarily directed most frequently toward new points, that enthusiasts on specific topics are normally inclined to magnify the importance of their particular endeavor and, therefore, to minimize other and possibly greater values.

That we should welcome helpful suggestions and active aid from outside sources is so obvious that it needs no stating; but how far outside endeavor should determine health work is something essentially different.

W. G. FOWLER.

The President: The report of the Committee on School Hygiene will be considered read and accepted if there are no objections.

REPORT OF COMMITTEE ON RESOLUTIONS

By DR. S. J. CRUMBINE,
Chairman.

Whereas, the President, in his annual address has invited the attention of the Conference to the imperative need for local health organizations provided with trained personnel and adequate equipment for service to all people;

Be it resolved: That the Conference endorse the President's recommendations and urge the speedy establishment of such local health units as the

most efficient plan of public health administration.

Resolution adopted.

Whereas, the sanitary problems connected with automobile tourist traffic, summer hotels and resorts throughout the United States and Canada, have increased so rapidly that they are a matter of serious concern to all health authorities, Federal, state and local:

Be it resolved: That every state and provincial health department undertake a study of every phase of this problem for the purpose of collecting information as a basis for the promulgation of reasonable uniform regulations for their sanitary supervision and control by state and provincial health departments.

Resolution adopted.

Whereas, the desirability of periodic physical examinations for the detection of early or incipient disease is generally accepted by all health officers,

Be it resolved: That this Conference approve the movement of the National Health Council of which this Conference is a member and pledge their support and aid to make the observance of National Physical Examination Day a success.

Resolution adopted.

Resolved: By the Conference of State and Provincial Health Authorities that a sum not to exceed \$55.00 be appropriated for the purpose of a silver cup to be known as the State Health Authorities Trophy to be given as a prize in an inter-state contest for the enlistment of the largest number of Modern Health Crusaders with the rank of Knight Banneret Constant in proportion to the number of children enrolled in the schools.

Resolution adopted.

Whereas, the District of Columbia

Medical Society has so generously offered the use of this building for this meeting:

Therefore, be it resolved: That the sincere thanks of the members of the Conference be extended to the District Society through Dr. Fowler, the District Health Officer.

Resolution adopted.

Another resolution was presented to the Committee but a majority of the members of the Committee thought it unwise to put it in the shape of a resolution but best to present it in the form of a recommendation, a recommendation that was included in the Report of the Committee on Communicable Diseases but on which no action was apparently taken. It has reference to the rules for uniform quarantine provisions for certain communicable diseases. The Resolutions Committee wishes to recommend that the Committee on Communicable Diseases bring in at the next annual meeting a report upon uniform quarantine measures for all communicable diseases, including the three that were mentioned. I think that it would be desirable for state health officials to arrive at some uniform standard for quarantine provision.

Dr. Welch, Alabama: As a member of the Committee on Communicable Diseases, we found that, on investigation, there were two such reports now in existence. Nothing had been done with either one of them so your committee did not bring in a report at this time.

The recommendations in the report of the Committee on Communicable Diseases were then read by Dr. C. W. Garrison, Arkansas: Smallpox, minimum period of twenty-one days, and until crusts and scales have disappear-

ed and the skin returned to normal. Scarlet fever—minimum period of thirty days and until all pathological discharges have ceased and throat has assumed a normal appearance. Diphtheria—until two negative cultures from the throat and nose have been obtained, at least twenty-four hours apart, the first swab for release being taken not earlier than the tenth day from date of onset. If culture method is not used, a minimum quarantine of twenty-one days and until all pathological discharges and other symptoms have subsided.

These are the recommendations of the committee.

Dr. C. W. Garrison, Arkansas: I wish to say a word relative to the time limit given in the report. The Committee's recommendations have arbitrarily stipulated the number of days and then stated that after so and so shall have happened that that is evidenced that the case should be terminated. We all know as a practical application that we cannot use laboratory findings in the rural districts and in the more especially rural states we are going to have to depend on medical findings. When the clinical findings are such as to enable us to see that all skin eruptions have disappeared as is set out in the wording of the committee, why should we be committed to a 21-day limit or any other limit, it seems rather arbitrary and we could get away from it.

Dr. McLaughlin: An incident came up the other day where I was told about a case of scarlet fever that was released at the end of thirty-four days and was sent back to a little town where he caused four cases of scarlet fever, two deaths resulting, after a

thirty-day period, I mean after a thirty-four day period.

Dr. Turner, Washington: Our experience with scarlet fever in Washington has been such that I do not believe really that that argument could be put in effect as well as the one we have there now. The ordinary scarlet fever in Washington is a very mild type of disease. Many of the cases have been terminated upon my direction earlier than the three weeks' quarantine which is our quarantine for the ordinary case of scarlet fever. Our regulations state that it may be terminated at the end of three weeks provided all of the manifestations of the disease are cleared but only under my own direction, that is, I personally see that case or one of my deputies. This has worked for two years without any of those cases that have been released at the end of the three weeks' period causing another case of scarlet fever. If you go into diphtheria, the two culture recommendation is absolutely correct, to my mind, and should go further. I believe that, provided you have the laboratory facilities, each of those cultures should be re-cultured in your laboratory. We have done that consistently. Before we re-cultured, we would release cases and find that an epidemic would break out again. After we practiced re-culture, we never had an outbreak traced to such release. I believe the re-culturing is tremendously worth while.

Dr. Olin: Within a few months, two months, I believe, there will be a study of some several thousand cases of scarlet fever published. The study has been made by one of the most competent observers I know, Dr. C. C. Slemmons of Grand Rapids. Most of these cases

have been followed through the hospital, and a few through the homes. Our minimum period for scarlet fever is twenty-eight days, Dr. Slemons has raised his in Grand Rapids to thirty-four days. When compiling the data on these cases, he immediately raised the period of quarantine. He has made the same study with diphtheria which also will come out in a short time. Our regulations are practically identical with these recommendations.

Dr. Chesley, Minnesota: With regard to this proposed quarantine period, to terminate a quarantine it first must be imposed. An arbitrary period which seems long for mild scarlet fever might result in concealment of cases or in neglect on the part of physicians to report suspicious cases. It is not cases in quarantine that spread disease so much as the unrecognized or concealed cases or suspects of mild type miscalled to evade quarantine."

Dr. Crumbine: May I explain the attitude of the Committee? The Committee thought that the proposed limits did not go far enough in that they apparently or intentionally dealt with one phase of the question and did not take into consideration the question of contact cases which we all know is the most important question with which we have to deal. What are we going to do with contact cases? If we are going to make some uniform rules and regulations let us make them. Therefore the committee asks that the report be referred back to the Committee on Communicable Diseases and the Committee asked to bring in a complete recommendation treating the whole subject.

Dr. Garrison: I move that the Committee be continued with the request

and instruction to investigate further the question of quarantine, that it also be instructed to get in touch with and co-operate with any other committee which may be appointed or any other representative of public health service investigating the standardization of rules and regulations on communicable diseases. Motion carried.

Dr. Welch, Alabama: I dislike to say and repeat again that there have been two very comprehensive reports on this subject. The American Public Health Association report published in the reports of the U. S. Public Health Service, cannot be made more comprehensive. I would like to be relieved of any further work on this Committee. I have given three years of very hard work to it. If you are going to continue this committee I wish you would appoint someone else as chairman.

We are not ready for another report because we have not adopted any of the suggestions made by the former committees. My idea was that we could take the three diseases common to every state in the United States—the conditions affecting these diseases are the same in Maine as in California—and agree among ourselves upon a uniform method of quarantine and perhaps we might agree on others in the future. So far as contact cases are concerned that would simply be a suggestion from this committee or from this organization because there would be nothing compulsory about it. Every state and county organization is going to have its own rules governing that particular phase of public health work. We might possibly agree on the three common diseases but I do not believe we can reach common ground on anything else.

Dr. Love, Colorado: I seconded the substitute motion particularly in order that I might speak about the last part of the last recommendation relative to diphtheria, namely, that in those cases in which cultures are not taken, if I understand what was said correctly—a minimum of twenty-one days.

Dr. Welch: Some states do not use the culture method and do not want it. It is optional. In most states a minimum quarantine is twenty-one days.

Dr. Love, Colorado: I know that Dr. Welch knows a great deal more about this than I do but I have seen enough of the carriers of diphtheria to feel that if we have even so much as one-half of one per cent of the total cases of diphtheria, as carriers, we can at least extend the period from twenty-one to twenty-eight days in those cases, where cultures are not used because I would rather keep one hundred longer than necessary than let one of them out to start an epidemic.

Mr. President: I would like to call the attention of the Conference to the fact that last year and the year before this Committee submitted the most complete report that has ever been submitted by any committee to the Conference. I have seen a great many of them framed in the administration offices of the state departments and they are being acted upon in a great many states and in a great many respects. The substitute motion is before you.

Motion adopted.

The President then called for the Report of the Committee on Nominations by Dr. Cogswell:

"The Committee recommends for President, Dr. A. J. Chesley of Minnesota, and for Vice-President, Dr. H. E.

Young, Public Health Officer of British Columbia. The retiring members of the Executive Committee are Doctors Crumbine, Hayne and Williams. The Committee recommends that these men be re-elected."

Report of the Nominating Committee adopted.

Drs. Crumbine and Harper were appointed as a committee to escort the President elect to the chair.

(Dr. Chesley took the chair.)

Dr. Chesley: Dr. McCormack, our President, the other officers of the conference and the members, all of whom I regard as friends, I want to express my deep appreciation for this honor. We have such a large, active membership now that it cannot be more than once in a lifetime that this honor could be granted to any member of the conference. I feel very unworthy of it.

I will do the best I can to serve you and with the greatest loyalty and appreciate the faith that you repose in me. It is a delight to have an opportunity to undertake such a duty. It is a responsibility that is greater, probably, at this time, than anything I have ever had to face but I know with the example of Dr. McCormack to guide me and with the support of the conference, we will pull through somehow. I shall count upon you, every one, to advise me and help me to do what the State and Provincial Health Officers wish done in matters of policy and in the direction of your Conference. Thank you.

The President then asked Dr. Osborne for the report of the Auditing Committee, and was informed it was ready.

President: The report of the Auditing Committee has been written and I

have information that it is complete and without objection, it will be considered as having been adopted.

Dr. McCormack: Mr. President, I would like to move that the Conference adjourn subject to the call of the President so that any other matters that may come up during the remaining days of the conference, that demand attention, may be attended to; that upon due notice you may call the Conference together again. I have information that there will probably be some other matters that may come up.

Dr. Chesley (President): I think the acceptance of that motion is unanimous. Dr. McCormack directs me to call upon our friend from Louisiana,

Dr. Oscar Dowling, to tell us what he saw on his recent trip to South American countries.

(Dr. Dowling then gave a description of his trip to various places in South America.)

Dr. McCormack: I would like to move that the papers, addresses and reports of committees be referred to the editorial board of the American Journal of Public Health, with a view to their publication, so that the entire profession may have the benefit of such addresses and papers as Dr. Olin thinks should be published generally. Motion adopted.

Conference Adjourned.

OFFICERS OF THE CONFERENCE, 1923

<i>President</i>	A. J. CHESLEY, M. D., Minnesota
<i>Vice-President</i>	H. E. YOUNG, M. D., British Columbia
<i>Secretary-Treasurer</i>	R. M. OLIN, M. D., Michigan

EXECUTIVE COMMITTEE

	Length of Service
CHARLES F. DALTON, M. D., Vermont	Until 1924
ARTHUR MCCORMACK, M. D., Kentucky.....	Until 1924
S. W. WELCH, M. D., Alabama.....	Until 1924
C. W. GARRISON, M. D., Arkansas.....	Until 1925
JOHN S. FULTON, M. D., Maryland.....	Until 1925
T. B. BEATTY, M. D., Utah.....	Until 1925
E. G. WILLIAMS, M. D., Virginia.....	Until 1926
JAMES A. HAYNE, M. D., South Carolina.....	Until 1926
EUGENE R. KELLEY, M. D., Massachusetts.....	Until 1926

STANDING COMMITTEES, 1923-24

Committee on Drug Addiction—Dr. Frederick Stricker, Oregon, Chairman; Dr. Oscar Dowling, Louisiana; Dr. Matthias Nicoll, Jr., New York; Dr. H. E. Young, British Columbia; Dr. F. E. Trotter, Hawaii; Consulting Member, Lawrence Kolb, U. S. P. H. S.

Committee on Tourists, Vacations and Resorts—Dr. Paul Turner, Washington, Chairman; Dr. Walter M. Dickie, California; Dr. C. A. Harper, Wisconsin; Dr. Clarence F. Kendall, Maine; Dr. W. F. Cogswell, Montana; Dr. Raymond C. Turck, Florida; Dr. Tracy R. Love, Colorado; Consulting Member, Dr. W. F. Draper, U. S. P. H. S.

Committee on Morbidity Reports—Dr. M. O. Nyberg, Kansas, Chairman; Dr. W. S. Leathers, Mississippi; Dr. C. B. Crittenden, Tennessee; Consulting Member, Dr. B. J. Lloyd, U. S. P. H. S.

Committee on Medical Service—Dr. Walter M. Dickie, California, Chairman; Dr. Ennion G. Williams, Virginia; Dr. W. S. Rankin, North Carolina; Consulting Member, Dr. C. C. Pierce, U. S. P. H. S.

Committee on Relations Between Medical Men and Health Officers—Dr. W. S. Rankin, North Carolina, Chairman; Dr. C. W. Garrison, Arkansas; Dr. Stanley Osborn, Connecticut; Dr. Eugene R. Kelley, Massachusetts; Dr. Paul Turner, Washington; Consulting Member, Dr. A. J. McLaughlin, U. S. P. H. S.

Committee on Public Health Nursing—Dr. A. T. McCormack, Kentucky, Chairman; Dr. Eugene Kelley, Massachusetts; Dr. Walter Dickie, California; Dr. W. F. Cogswell, Montana; Consulting Member, Miss Elizabeth Fox, R. N., American Red Cross.

Committee on Sanitary Engineering—Dr. Charles F. Dalton, Vermont, Chairman; Dr. Paul Turner, Washington; Dr. Raymond C. Turck, Florida; Consulting Member, Dr. Hugh Cumming, U. S. P. H. S.

Committee on Venereal Diseases—Dr. Oscar Dowling, Louisiana, Chairman; Dr. Isaac Rawlings, Illinois; Dr. J. S. Fulton, Maryland; Dr. S. W. Welch, Alabama; Consulting Member Dr. Mark White, U. S. P. H. S.

Committee on Mental Hygiene—Dr. Eugene R. Kelley, Massachusetts; Chairman; Dr. W. F. Cogswell, Montana; Dr. C. A. Harper, Wisconsin; Consulting Member, Dr. Frankwood Williams, National Committee on Mental Hygiene.

Committee on School Hygiene—Dr. Charles H. Miner, Pennsylvania, Chairman; Dr. Ennion Williams, Virginia; Dr. William C. Fowler, District of Columbia; Dr. John W. S. McCullough, D. P. H., Ontario; Consulting Member, Dr. Taliaferro Clark, U. S. P. H. S.

Committee on Industrial Hygiene—Dr. John E. Monger, Ohio, Chairman; Dr. Byron U. Richards, Rhode Island; Dr. Stanley Osborn, Connecticut; Consulting Member, Dr. Lewis R. Thompson, U. S. P. H. S.

Committee on Child Hygiene—Dr. James A. Hayne, South Carolina, Chairman; Dr. T. F. Abercrombie, Georgia; Dr. Cortez F. Enloe, Missouri; Dr. Charles H. Miner, Pennsylvania; Consulting Member, Miss Grace Abbott, U. S. Children's Bureau.

Committee on Communicable Diseases—Dr. C. A. Harper, Wisconsin, Chairman; Dr. Charles Duncan, New Hampshire; Dr. Maurice M. Seymour, Saskatchewan; Dr. S. W. Welch, Alabama; Dr. Clarence F. Kendall, Maine; Consulting Member, Dr. McCoy, U. S. P. H. S.

Committee on Recent Advances in Sanitary Laws, Organization and Practice—Mr. H. A. Whittaker, Minnesota, Chairman; Dr. Maurice M. Seymour, Saskatchewan; Dr. Charles F. Dalton, Vermont; Consulting Member, Paul Preble, U. S. P. H. S.

Committee on Service of State Public Health Laboratories—Dr. Byron U. Richards, Rhode Island, Chairman; Dr. W. S. Leathers, Mississippi; Dr. Rodney P. Fagen, Iowa; Mr. K. F. Maxey.

Special Committee on Health Week Co-operating with National Health Council—Dr. James A. Hayne, South Carolina, Chairman; Dr. A. T. McCormack, Kentucky; Dr. Isaac Rawlings, Illinois; Dr. Matthias Nicoll, Jr., New York; Consulting Member, James A. Tobey, National Health Council.

Representative on National Health Council—Dr. J. S. Fulton, Maryland; alternate, Dr. A. T. McCormack, Kentucky.

SECRETARIES OR EXECUTIVE OFFICERS, STATE, TERRITORIAL AND PROVINCIAL BOARDS OF HEALTH OF CANADA AND UNITED STATES

CANADA.

J. A. Amyot, M. D., Deputy Minister, Department of Health, Ottawa.

CANADIAN PROVINCES.

ALBERTA—W. C. Laidlaw, M. D., Deputy Minister of Public Health, Edmonton, Alberta.
BRITISH COLUMBIA—H. E. Young, M. D., Provincial Officer of Health, Victoria, British Columbia.

NEW BRUNSWICK—George G. Melvin, M. D., D. P. H., Chief Medical Officer, Fredericton,
NOVA SCOTIA—A. C. Jost, M. D., Provincial Health Officer, Halifax, Nova Scotia.

ONTARIO—John W. S. McCullough, M. D., D. P. H., Chief Officer of Health, Toronto,
QUEBEC—Alphonse Lessard, M. D., Director, Provincial Bureau of Health, Quebec, Quebec.

SASKATHEWAN—Maurice M. Seymour, M. D., Commissioner of Health, Regina, Saskatchewan.

UNITED STATES.

Hugh S. Cumming, M. D., Surgeon General, U. S. Public Health Service.

STATES AND TERRITORIES.

ALABAMA—S. W. Welch, M. D., State Health Officer, Montgomery.

ALASKA—H. C. DeVighe, M. D., Commissioner of Health, Juneau.

ARIZONA—F. T. Fahlen, M. D., Secretary, State Board of Health, Phoenix.

ARKANSAS—C. W. Garrison, M. D., State Health Officer, Little Rock.

CALIFORNIA—Walter M. Dickie, M. D., Secretary, State Board of Health, Sacramento.

CANAL ZONE—Henry C. Fisher, M. D., Chief Health Officer, Balboa Heights.

COLORADO—Tracy R. Love, M. D., Secretary, State Board of Health, Denver.

CONNECTICUT—Stanley Osborn, M. D., State Commissioner of Health, Hartford.

DELAWARE—Arthur T. Davis, M. D., Executive Secretary, State Health and Welfare Commission, Dover.

DISTRICT OF COLUMBIA—William C. Fowler, M. D., Health Officer, Washington.

FLORIDA—Raymond C. Turck, M. D., State Health Officer, Jacksonville.

GEORGIA—T. F. Abercrombie, M. D., State Commissioner of Health, Atlanta.

HAWAII—F. E. Trotter, M. D., President, Territorial Board of Health, Honolulu.

IDAHO—Frank W. Almond, M. D., Medical Advisor, Department of Public Welfare, Boise.

INDIANA—William F. King, M. D., State Health Commissioner, Indianapolis.

ILLINOIS—Isaac D. Rawlings, M. D., Director, State Department of Public Health, Springfield.

IOWA—Rodney P. Fagen, M. D., Secretary, State Board of Health, Des Moines.

KANSAS—M. O. Nyberg, M. D., Secretary, State Board of Health, Topeka.

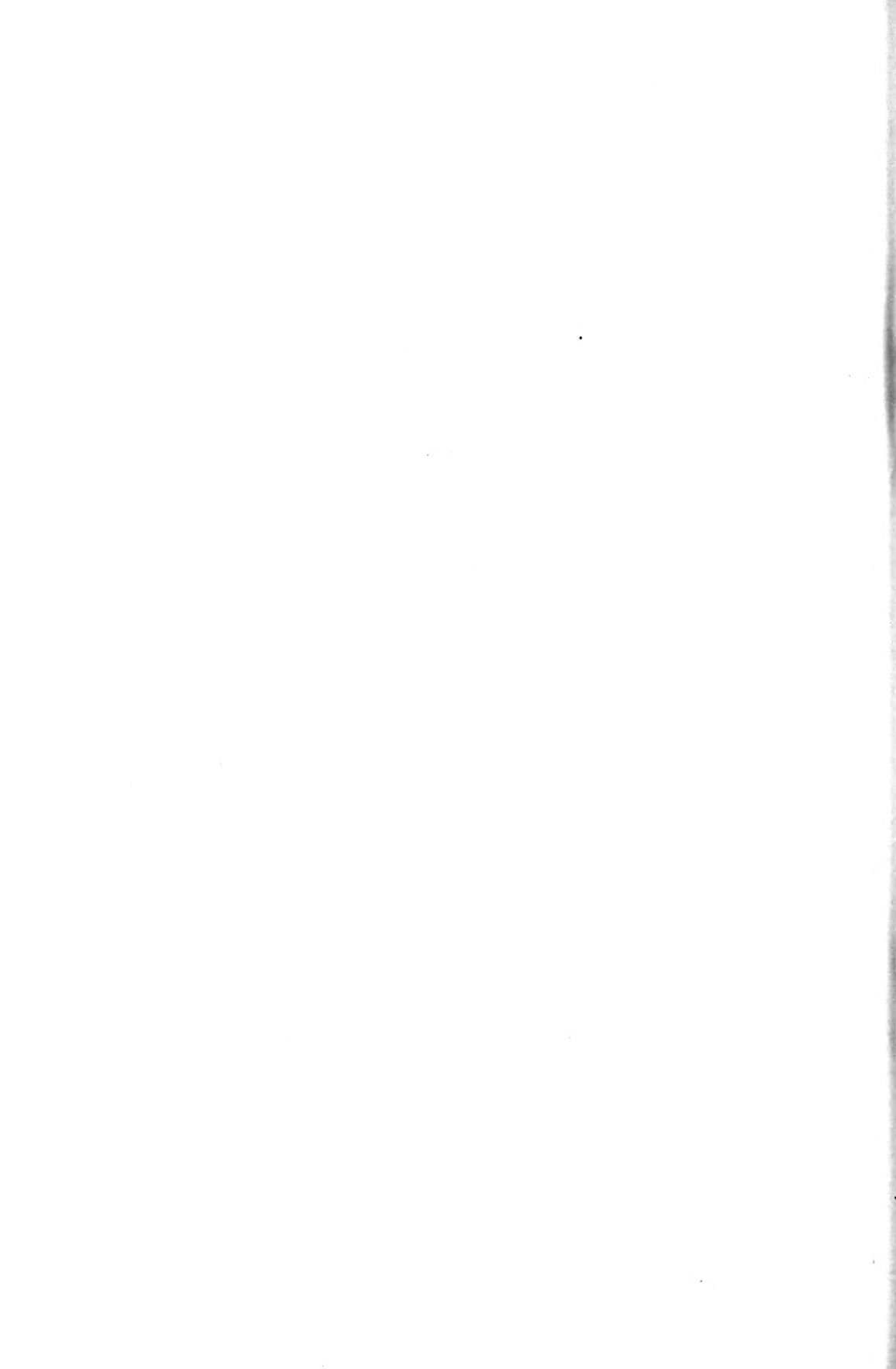
KENTUCKY—A. T. McCormack, M. D., State Health Officer, Louisville.

LOUISIANA—Oscar Dowling, M. D., President, State Board of Health, New Orleans.

MAINE—Clarence F. Kendall, M. D., State Commissioner of Health, Augusta.

MARYLAND—J. S. Fulton, M. D., State Health Officer, Baltimore.

- MASSACHUSETTS—Eugene R. Kelley, M. D., State Commissioner of Public Health, Boston.
- MICHIGAN—R. M. Olin, M. D., State Commissioner of Health, Lansing.
- MINNESOTA—A. J. Chesley, M. D., Secretary, State Board of Health, St. Paul.
- MISSISSIPPI—W. S. Leathers, M. D., Executive Officer, State Board of Health, Jackson.
- MISSOURI—Cortez F. Enloe, M. D., State Health Commissioner, Jefferson City.
- MONTANA—W. F. Cogswell, M. D., Secretary, State Board of Health, Helena.
- NEBRASKA—J. D. Case, M. D., Chief, State Bureau of Health, Lincoln.
- NEVADA—S. L. Lee, M. D., State Health Officer, Carson City.
- NEW HAMPSHIRE—Charles Duncan, M. D., Secretary, State Board of Health, Concord.
- NEW JERSEY—J. C. Price, M. D., State Director of Health, Trenton.
- NEW MEXICO—George S. Lockett, M. D., Director of Public Health, Santa Fe.
- NEW YORK—Matthias Nicoll, Jr., M. D., State Commissioner of Health, Albany.
- NORTH CAROLINA—W. S. Rankin, M. D., State Health Officer, Raleigh.
- NORTH DAKOTA—A. A. Whittemore, M. D., State Health Officer, Bismarck.
- OHIO—John E. Monger, M. D., State Director of Health, Columbus.
- OKLAHOMA—Carl Puckett, M. D., State Health Commissioner, Oklahoma City.
- OREGON—Frederick Stricker, M. D., State Health Officer, Portland.
- PENNSYLVANIA—Charles H. Miner, M. D., State Commissioner of Health, Harrisburg.
- PHILIPPINE ISLANDS—V. Jesus, Director of Health, Manila.
- PORTO RICO—Pedro N. Ortiz, M. D., Commissioner of Health, San Juan.
- RHODE ISLAND—Byron U. Richards, M. D., Secretary, State Board of Health, Providence.
- SOUTH CAROLINA—James A. Hayne, M. D., State Health Officer, Columbia.
- SOUTH DAKOTA—P. B. Jenkins, M. D., Superintendent, State Board of Health, Waubay.
- TENNESSEE—C. B. Crittenden, M. D., State Commissioner of Health, Nashville.
- TEXAS—Malone Duggan, M. D., State Health Officer, Austin.
- UTAH—T. B. Beatty, M. D., State Health Commissioner, Salt Lake City.
- VERMONT—Charles F. Dalton, M. D., Secretary State Board of Health, Burlington.
- VIRGINIA—Ennion G. Williams, M. D., State Health Commissioner, Richmond.
- WASHINGTON—Paul A. Turner, M. D., State Director of Health, Seattle.
- WEST VIRGINIA—W. T. Henshaw, M. D., State Health Commissioner, Charleston.
- WISCONSIN—C. A. Harper, M. D., State Health Officer, Madison.
- WYOMING—G. M. Anderson, M. D., State Health Officer, Cheyenne.



INDEX

	Page
Abbott, Miss Grace.....	115
Anderson, Dr. G. M.....	49
Bigelow, Dr.....	42
Bigelow, Dr., address by.....	36
Brown, Dr. Walter H., address by.....	99
Chesley, Dr. A. J.,.....29, 36, 94, 167,	176
Chesley, Dr. A. J., Committee report by.....	154
Chesley, Dr. A. J., president-elect, remarks by.....	177
Clark, Dr. Taliaferro.....	118
Cogswell, Dr. W. F., committee report by.....	177
Communicable Diseases, report of committee on.....	122
Conwell, Dr.....	48
Crittenden, Dr. C. B.....	35
Crumbine, Dr. S. J.....29, 34, 119,	176
Crumbine, Dr. S. J., committee report by.....	173
Crumbine, Dr. S. J., report of committee on Standard Railway Sanitary code, by..	56
Crumbine, Dr. S. J., report of representative on National Health Council, by....	49
Dalton, Dr. Chas. F.....	49
Dalton, Dr. Chas. F., report of committee on Sanitary Engineering, by.....	43
Dawling, Dr. Oscar.....	178
Drug Addiction, report of committee on.....	18
Emmons, Dr. A. B., address by.....	57
Executive Committee, minutes of meeting of.....	17
Financial statement of receipts and disbursements.....	12
Flannagan, Dr.....	121
Fowler, Dr. W. C.....	25
Fowler, Dr. W. C., committee report by.....	171
Fox, Miss Elizabeth.....	160
Freeman, Dr.....	165
Garrison, Dr. C. W.....175, 176	
Guests present, names of.....	4
Harper, Dr. C. A.....24, 30, 94	
Harrub, Mr. C. N.....	47
Hartley, Dr. E. C., address by.....	110
Hastings, Dr.....	167
Hayne, Dr. James A.....35, 41, 160,	166
Hayne, Dr. James A., committee report, by.....	116
Health Examination Plans of National Health Council, by Dr. A. J. McLaughlin.	129
Howard, Col. Denne C.....	61
Industrial Hygiene, report of committee on.....	169
Kelley, Dr. Eugene R.....21, 24, 41, 47, 62, 119,	167
Kelley, Dr. Eugene R., report of committee, by.....	83
King, Dr. William F.....48, 79,	166
Lathrop, Miss Julia.....	119
Leete, Miss Harriett.....	121
Love, Dr. Tracy R.....23, 122, 160,	177
Lumsden, Dr. L. L.....	49

	Page
Maternity and Infancy, report of committee on.....	116
McCormack, Dr. A. T.....	48, 61, 62, 178
McCormack, Dr. A. T., president's address by.....	6
McKay, Dr. Florence, address by.....	102
McLaughlin, Dr. A. J.....	175
McLaughlin, Dr. A. J., address by.....	129
Medical Men and Health Officials, report of committee on relation of.....	161
Medical Service, report of committee on.....	30
Mendelsohn, Mr.....	47, 48
Mental Hygiene, report of committee on.....	83
Mercantile Hygiene an Asset to Public Health, by Dr. A. B. Emmons.....	57
Minnesota Plan and Results to Date, by Dr. E. C. Hartley.....	110
Mississippi's Plan for Maternity and Infancy Hygiene, by Dr. Underwood.....	108
Monger, Dr. John E., committee report by.....	169
National Health Council, report of representative on.....	49
New York's Plan for Maternity, Infancy and Child Hygiene, by Dr. Florence McKay	102
Nicoll, Dr. Matthias, Jr.....	23, 42, 56
Nicoll, Dr. Matthias, Jr., committee report by.....	30
Nominations, report of committee on.....	177
Officers of Conference for 1923.....	178
Olin, Dr. R. M.....	24, 25, 175
Olin, Dr. R. M., report of committee on vacations, tourists and resorts, by.....	26
Olin, Dr. R. M., report of secretary-treasurer and executive committee, by.....	12
Osborne, Dr. Stanley.....	23
Palmer, Dr.....	121
Pay Clinic and the Community, by Dr. Bigelow.....	36
President's Address, by Dr. A. T. McCormack.....	6
Program of Conference.....	4
Public Health Nursing, report of committee on.....	154
Railway Sanitary Code, report of committee on.....	56
Rajchmann, Dr.....	22, 36
Recent Advances in Sanitary Practice, report of committee on.....	130
Resolutions, report of committee on.....	173
Roll Call, by states and provinces.....	3
Rude, Dr. Anna, address by.....	95
Sanitary Engineering, report of committee on.....	43
School Hygiene, report of committee on.....	171
Secretary-Treasurer, report of.....	12
Secretaries and Executive Officers of Boards of Health of the U. S., and Canada...	180
Sheppard-Towner symposium by Anna Rude.....	95
Standing Committees, 1923-24, members of.....	178
Stricker, Dr. Frederick R., report of committee on drug addiction, by.....	18
Trend of Maternal and Child Hygiene, by Walter H. Brown, M. D.....	99
Trotter, Dr. F. E.....	79
Turner, Dr. Paul.....	168, 175
Underwood, Dr., address by.....	108
Vacations, Tourists and Resorts, report of committee on.....	26
Venereal Disease, Achievement in control of.....	73
Venereal Diseases, report of committee on.....	62
Welch, Dr. S. W.....	82, 176
Welch, Dr. S. W., committee report by.....	122
White, Mark J., report of committee on Venereal Diseases, by.....	62
Whittaker, Mr. H. A.....	47
Whittaker, Mr. H. A., committee report by.....	130

